THE VETERINARY RECORD

A Weekly Journal for the Profession.

Edited by WILLIAM HUNTING, F.R.C.V.S.

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THE EDINBURGH VETERINARY SCHOOLS.

We are able this week to publish a short report of the opening of both the Edinburgh schools, and one cannot help being struck with the energy and determination shown by all concerned. At the New Veterinary College Principal Owen Williams delivered the introductory address and Mr. Alex. Lawson, the President of the Royal College of Veterinary Surgeons took the chair. The Principal was in fighting form and championed his profession in more than one of the fields where we consider an insufficient value is placed upon our services. Of course tuberculosis was noticed, and the relative positions of veterinary and medical men was well put in the sentence—"We know that the disease is causing terrible havoc among our herds; it is *our* duty to continue to do all we can to abolish the disease from the animals we have to attend to; we can safely leave the extirpation of the dire disease from mankind to our medical brethren." This view requires enforcing strongly, as many sanitarians have apparently thought that the chief reason for suggesting regulations against bovine tuberculosis was the risk entailed by man from the consumption of meat and milk. The loss among cattle is quite sufficient to supply an unanswerable argument for some measures of national control over the bovine disease. The Principal also referred to the Army Veterinary Department, the Board of Agriculture, and the Indian Civil Veterinary Department, all of which are glad to utilise our services, but very slow to offer either the pay or position necessary to attract the best men.

Mr. Lawson in his remarks expressed a desire to see the Scotch Colleges amalgamated, believing that it would be beneficial to the profession. If such an event could be attained Scotland would have a claim on the national exchequer, and one Scotch school could be founded on a scale we should all be pleased to see.

At the Royal (Dick) School the chair was taken by Sir Andrew Macdonald, who referred to the magnificent gift to the Scotch Universities made by Mr. Carnegie, and suggested that veterinary science might well be included in the scope of this scheme. The opening address was delivered by Professor Hamilton of Aberdeen University, who after touching briefly on the progress of veterinary science devoted his time to a most interesting consideration of that most fatal and ill-understood disease, Braxy. Like Professor Crookshank in London, Professor Hamilton asked—"Why is it that while our Universities grant degrees to practitioners of human medicine, to those following arts and science, as yet you have not claimed an equal right for comparative medicine?" Professor Hamilton added another reason to those we have heard before in favour of affiliating veterinary schools with the Universities. He said—"The benefit would be mutual, for I often think that the teaching imparted to students of human medicine is somewhat narrow, and might be largely benefitted by being considered more than at present from a comparative point of view."

FOOT CASES.

By C. CUNNINGHAM, M.R.C.V.S., Slateford.

(*Concluded from p. 204*).

QUITTOR.

A big, four-year-old, carriage horse, has a "corn" or gets a "tread on the coronet" in cold winter weather. There is slight death of tissue, a little "slough" from the laminæ or of the coronary substance, the bone or the cartilage becomes involved and a very bad quittor follows. Curative measures are only partially successful, so much so that the horse is ultimately sold to a cab, and even there is too lame for work and the shoeing smith advises a friend in the country to purchase and "he will cure." But the smith's cure in turn does more harm than good, and the speculation bids fair to end the wrong way. The horse is brought to your place, and as you look at the long standing sore, with its big enlargement and sinus, and the marks left of very energetic treatment, the question crops up, Can anything save an operation and removal of the cartilage cure this old standing case? Yet by simply thoroughly thinning out the sole, and heels, and bars, and rasping and paring the wall of the inner quarter to the quick and taking all pressure and compression of the diseased parts, and laying open with no sparing hand the main sinus leading almost perpendicularly down into and behind the diseased cartilage and keeping this wound well open, combined with the daily use of the warm water tube and mild syringings, the parts begin at once to take on a more healthy action, the swelling of the coronet decreases, the discharge from the sinus gradually disappears, in a fortnight the horse is nearly sound, in six weeks is at work, and save for some chronic enlargement and "false quarter" is almost as good a horse as ever he was.

Another valuable carriage horse is affected in a somewhat similar way though not so severely, and for a couple of months the veterinary surgeon in charge does his best with the foot, but still the sinus almost perpendicularly down behind the cartilage, with its nasty discharge persists. This, too, looks like a case for extirpation of the cartilage, yet careful examination and the removal of the duller crust of the quarter shows that the seat of the evil exists in another sinus much lower down, having a minute opening through the sensitive laminæ inside the hoof and running in a slanting direction for fully one inch straight to the coffin bone. Free incision and treatment similar to the first case effects a permanent cure in little more than a fortnight.

These two cases of course are what one may call pleasant and fortunate cases, and may be the excep-

tion to the rule, yet they show what simple common-sense treatment will sometimes effect in very troublesome old standing cases of quittor, without having recourse to a big outstanding operation for the "removal of sequestra" or "extirpation of the lateral cartilage." These latter operations are quite right, and very necessary and most successful in some cases, but it is possible that now-a-days they are just a little too frequently had recourse to. The worst cases of quittor I have met with have arisen from these sloughings of the laminæ with often a piece of the surface of the os pedis attached—the effects of bad shoeing and after neglect, or from injuries to the coronet and cartilage. It is surprising how well many such cases recover by simply trying in every way to remove each cause of irritation—paring and rasping away the hard unyielding horn, giving free exit to imprisoned pus and dead tissues etc. Soothing measures, time, and a little good surgery often give agreeable results.

Canker.

Canker has not a pleasant sound in the practitioner's ear. A good many years ago some amusement was caused in the profession by a wordy duel between a learned professor and an equally talented and eminent F.R.C.V.S. as to the curability or non-curability of canker. A substantial bet (not very professional) was even talked of, and it is to be regretted that seconds were not appointed to see fair play and the result noted. The plain fact of the matter being that long before either of these very deservedly esteemed gentlemen had been born into the profession cases of canker of the feet had been successfully treated by their forefathers.

The actual cautery properly applied, with suitable after dressing, and the horse at work during treatment, is possibly the best mode of treatment when it can be carried out, as in towns and cause-wayed streets in summer weather etc. Still the casting of a big heavy horse once or twice a week is no benefit, stocks or the operating table are not at every one's call, and in country practice, and on soft muddy roads it is scarcely possible to keep the dressing in position and the parts dry and clean, and one has perforce to adopt other and more primitive means, and generally, if the animal is young, with fair success. Thus we remember (I) two young very good Clydesdale horses, thick set and well made, with clean legs and naturally good feet, yet the off fore in the one and the off hind in the other, from some unknown cause, were very severely affected. Frog and sole in both, and laminæ also in one at the outer heel right up to the coronet. (II.) A big English Shire horse, five-years-old, 17 hands, and thick in proportion, with fairly clean legs but a plentiful crop of long thick hair at the heels and pasterns. The canker diathesis, if such there be, in his system and no mistake about it, a big ugly thrush in the near fore foot, and canker in its worst form in the other three, involving frogs, soles, and laminæ to a very disheartening extent. (III.) A five years old Clydesdale horse, which the grieve at the farm (a pupil possibly of some veterinary lecturer or editor) had messed with for nearly a couple of years, with the result that the whole of the soles and frogs of the hind feet, and the laminæ of the inside quarters, were covered with foul smelling cankerous granulations, and the animal dangerous to handle.

Not one of these horses was cast, and the firing iron was only occasionally and very sparingly applied; yet the disease in the feet was mastered in each instance, and the animals returned to their work cured, one of them—the last mentioned, working under my own observation for five years at very hard work, the blacksmith declaring, when asked, that "the horse's hind feet were the best in the district." This horse died about three weeks ago from the effects of stomach and bowel derangement, and I had the curiosity to examine his feet after death, finding them thoroughly sound.

The principles of treatment in these and other cases was simply "the old story," removal of all detached horn, and any cause of irritation, unremitting care and attention, trying to destroy and keep down and eradicate the diseased growth and secretion and to induce the formation of healthy hoof by every means in one's power; using if need be every mildly caustic and astringent agent in the pharmacopœia; keeping up, all along and always, steady and uniform pressure; packing, to the very bottom, the commissures and cleft of the frog; firm pads of tow to the sole; a bar shoe and a good leather sole, and a splint of hard wood driven in between the two at the heel, and along each side of the frog to underneath the shoe at the toe, give fair pressure to the sole and frog; whilst firm pledgets of tow, with good calico bandages and tar twine over all do the same to the laminæ. When much of the crust has been removed and the shoe cannot be nailed on firm, tight bandages and a "boot" or small bag drawn on must needs suffice. The application which I, in common with some other veterinary surgeons, find most useful in these canker cases is a queer mixture of everything handy, and has nothing to recommend it save cheapness and efficiency. Treacle, Cupri sulph., zinci sulph., cupri sub-acet., or such like, with, to give consistency and bulk, calamine, powd. catechu and oak bark—melted and mixed over a slow fire, and when cooling some carbolic and strong acetic acid added. This gives a mixture which is the essence of quackery—a relic of the old farriers, defying all the laws of pharmacy and possibly of chemical affinity, yet an application which in my experience has few equals in the treatment of this troublesome disease. Thrushes, too, go before it in no time.

The treatment of canker in an old horse's feet, and especially if there is tendency to grease at the heel, is not to be recommended. I think "the game" in such a case is "not worth the candle"; though cured for a time a relapse is almost certain to take place. With young, highly priced horses, such as some of those mentioned (No. II. I believe when sound cost £115) matters are very different. These well repay, to their owners at least, all the care and attention given them, and I have never known of a relapse in a young or middle aged animal after thorough treatment. The main difficulty I have experienced in such cases is in getting a fee or remuneration at all proportionate to one's work and

time expended. Charge an average owner in this part of the country £10 or £15 for curing a canker case and he starts and stares—"How can he find all that money?" Of late years there has been much talk of placing the veterinary profession on an equality with the sister science. Has the R.C.V.S. Council not commenced operation at the wrong end of the programme? When the fees and emoluments received by veterinary surgeons for operations and attendance, equal those received by even the middle class surgeons and physicians common sense would say that it will be time enough then to talk of equality between the professions. £5 to £20 for an obstetric case, £10 to £25 for a special operation, how very seldom do we hear of such in the veterinary world? A glance, too, at the medical statistics of any large hospital and infirmary, shewing the almost endless variety of ailments affecting its suffering inmates, and the remembrance that our patients—at least our larger ones—do not and cannot lend themselves so readily to abdominal—and many other regions of higher class surgery—is useful in the consideration of this so-called equality of the two professions.

This, however, by the way. As we are all agreed that the proper treatment of "foot cases" is a most important item in the every day work of the veterinary surgeon these desultory notes may be excused.

A PROSTATIC TUMOUR.

Subject.—A black setter dog.

January 19th, 1901.—I was consulted about the above animal, upon enquiry as to symptons etc. I was informed the dog had a disagreeable discharge of pus about the prepuce.

The dog being the property of a lady my modesty debarred me making the full enquiries, and the examination I should like to have otherwise done, and so came to the conclusion from symptoms enumerated the dog was suffering from "balanitis" and treated him for such.

January 29th.—Visited and found dog improving, continued treatment.

Feb. 4th and 12th.—Improvement maintained.

Feb. 27th.—Dog sent into Infirmary with word "as bad as ever."

Placed animal under close observation. Was noticed to be in fair condition bodily, bright and cheerful in manner, in fact to all external appearance the animal was healthy. On micturition it was noticed a copious discharge of thick pus was voided, probably some four ounces in quantity, followed by normal urine. At other times the urine would be discharged first followed by the pus; at times the pus would be streaked with blood.

The dog was under my care for a month, at times appearing much better, giving encouragement to persevere in our treatment. All manner of constitutional remedies were given, and a good strengthening diet allowed, but all to no good purpose.

March 6th.—Discharged incurable. I made a request of my client that should the dog die or be destroyed to kindly inform me, so that I might have the privilege of making an autopsy on what I considered a highly interesting case.

I heard nothing further until some four months after when the dog was sent down to my place to be destroyed. No doubt in the meantime other professional (and otherwise) advice had been called into requisition. This also proving futile the animal was returned to me for destruction, which was duly carried out by the administration of hydrocyanic acid on July 22nd.

Autopsy.—Upon opening the abdominal cavity a large foreign growth, size of a fair sized pine-apple, presented itself, attached to and communicating with prostate gland at the neck of the bladder. Section revealed a great number of cysts (multilocular) each cyst being filled with pus. Other abdominal organs healthy.

J. H. C.

A THORACIC TUMOUR.

Subject.—Black St. Bernard dog brought to my surgery on August 26th last for advice about an enormous tumified growth on the left side of chest, occupying the triangular space between the scapula and humerus and extending along the wall of the chest; very hard and resistant to the touch. Growth about the size of a child's head.

By way of treatment advised a stimulating liniment externally, and iodides internally to promote absorption.

Sept. 16th.—Three weeks passed and the dog was again brought for advice and was left for treatment, or to use my clients exact words to "kill or cure."

Upon manipulation I found no reduction in size of tumour, but certain parts were less resistant than formerly, this fact led me to think there might be some deep seated pus, and to be sure on this point I inserted an exploring needle. No pus made its appearance, but in its place there exuded a dirty brown grumous material; this led me to enlarge the opening sufficiently to insert my finger, which I did and felt a hard gritty substance resembling bony spiculæ As night was fast approaching and the light bad I abandoned any further exploration and decided to operate on the following morning.

Sept. 17th, 8.30 a.m.—Dog placed on operating table, all properly secured on his right side, and chloroform administered. Complete anæsthesia established in a very short time. The left fore leg was now well extended, the hair clipped off the enlargement and the parts thoroughly washed and cleansed with a solution of chinosol. A bold incision was made some six inches in length, the skin dissected and deflected as far as convenient, I then tried to work my fingers around and underneath and by this means relax the tumour from its attachments, but I found this impossible, the growth was too deep seated.

I then made another digital exploration into the centre of the substance and found it to contain a quantity of bony debris and grumous material, but what astonished me most was the depth I could insert my finger, what seemed to me quite through the thoracic walls into the thoracic cavity.

The animal withstood the whole manipulation splendidly, without manifesting the slightest inconvenience. By this time I could plainly see that I had undertaken an operation I could not finish satis-

factorily, and taking all things into consideration such as the enormous area the growth had invaded, nearly the whole of the left side of the thorax, and the ill-defined condition of the growth, I came to the conclusion it was useless continuing. The animal was still well under the influence of chloroform, and I decided to administer a little hydrocyanic acid, which had the desired effect, the animal passing peacefully away without regaining consciousness.

The autopsy justified my decision, for upon opening the thorax it was at once seen that the tumour penetrated the walls of the chest and invaded the left thoracic cavity, so much so as to displace the lobes of the lungs on this side, quite half filling the cavity. The tumour on section presented in its centre a quantity of broken down bony debris and lowly organised tissue. The substance of the tumour was tough and fibrous.

The heart was much enlarged, flabby consistency, walls of ventricles very much attenuated. The spleen half healthy and half œdematous. All the other organs apparently healthy.

The owner of the animal informed me that the enlargement had been gradually getting bigger for six months past. My opinion is that at some time or other the animal had probably been kicked on the left side of the chest and several ribs broken, and that the tumour referred to was the result.

JOSEPH H. CARTER, F.R.C.V.S.

Burnley, Sept. 18th.

GLANDERS IN AUSTRO-HUNGARY.

It may interest you to know how an outbreak of glanders is being treated in Austro-Hungary. The 21st Infantry Regiment marched for practice for six days, officers and trumpeters being mounted on about 30 horses. For some reason the infantry have no veterinary surgeon. Arriving at the sixth station there was occasion to call in the town veterinary surgeon for a case of sore back. While advising as to treatment, he by chance saw the shoeing smith looking at a horse's nostrils, and on looking at them himself found characteristic ulcers and enlarged submaxillary glands. The detection of glanders *en route* caused quite a sensation, and the next day the horse was shot in the presence of a military veterinary surgeon, who had been summoned from the nearest cavalry station. Extensive lung lesions were found. The next step was to destroy all suspicious cases. Two were found and destroyed. These showed lung and liver lesions but not to that marked degree as No. 1. References were made to the War Office and inquiries as to future proceeding, as the horses were in a private stable and could not be transported to their quarters. From the War Office arrived in due course a delegate, a Professor from the Veterinary College in Vienna; one more suspicious horse was shot in his presence and pronounced as glandered. I was present at all the dissections.

The after or prophylactic treatment turned out quite differently to what I had anticipated. In the first case mallein was not used, for the reason that it is not reliable in the diagnosis of glanders. Not only that one may slaughter a sound horse which had a rise of temperature, but also that a glandered horse need not necessarily react to mallein. This latter statement being explained by the fact that the lung lesions may get encysted and for a time inert but liable at any later time to become active again. Naturally these statements coming from a source of such repute cannot be ignored without further demonstration, and I am looking forward with great interest to any fresh facts on mallein.

The remaining 26 horses are still at their place of quarantine, which, according to the laws, lasts eight weeks from the last case. The horses were not separated but continue to keep the same stables which they had entered. The first horse, writing from memory, was shot on the 3rd of September, the second and third on the 5th, and the fourth on the 8th. Quarantine was declared for eight weeks from September 8th. On September 15th a horse died of inflammation of the lungs.

Autopsy showed glanders nodules in the lungs. Quarantine has been prolonged for eight weeks from September 15th. That is where the matter stands at present, and it bids fair to last for a year or two.

When you consider that the horse No. 1 had been infecting stables in six places on the way, where other horses are put in again without compunction it is easily explained how rapidly and radically glanders spreads. Also how Government horses can be left without a veterinary surgeon is a mystery. If it should interest you I would report you how this affair terminates.

HENRY REYNOLDS, M.R.C.V.S.

Hermanmiestec, Böhmen.
Sept. 19th.

CONGESTION OF THE KIDNEYS (?)

On Sunday, November 18th, 1900, I was called in to see a valuable black heavy-weight hunter, six years old, the property of a gentlemen in this neighbourhood.

History.—He had been hunted a fair hard day on the Saturday. When he came home the groom thought there was something wrong but as he drank his gruel he (the groom) left him for the night. On the Sunday morning he did not seem himself so I was called in. When I got there he was all of a heap, so to speak, and when made to move round his box did so with great difficulty. He had staled a dark coloured urine. Pulse rapid, full, temperature 104°; mucous membranes injected

Diagnosis.—Congestion of the kidneys.

Treatment.—Hot cloths across the loins, and salines, linseed, etc I removed his shoes as I was suspicious of laminitis. I sat up all night with him and passed the catheter twice during the night and found the urine was becoming less discoloured. In morning temperature had fallen to 101° About 5 o'clock on Monday afternoon he was taken with violent colicky pains. His bowels had not acted since Sunday morning. Gave him quart of linseed oil with anodynes. His bowels did not act for four days and the pains were intermittent. He had a pint of oil every day, with chloral, hot cloths to abdomen, clysters, etc.

On 4th day they began to act. Had him walked out to encourage the action of the bowels. He walked very well. As his bowels acted the pains passed off. Six days from the time he was first taken he fell with laminitis in fore feet. He was a good patient to treat. We made him lie down and rest his feet and could do anything with him when he was down such as passing the catheter, etc. In about ten days time he was able able to stand well on his feet (fore). This went on for about five days when he took laminitis in near hind foot. In a week's time the off hind was attacked. They went on well for about a week when I thought a little exercise would help him so ordered rolling shoes, and I had the very bad luck to have him pricked in near hind. I did not find this out for about four days after. He gradually got worse on that leg so I took the shoe off and found what was up. I pared it out and found pus burrowing underneath the sole so I straightway stripped the whole sole off, cleansed with Jeyes' fluid and dressed with boric acid, chinosol, and zinci sulph. This went on well for three weeks when I had to do the same with the off hind, as suppuration had taken place there. I could not sling the horse, as he would not have them at any price, so he had to lie down nearly all the time, I got leather boots made for his feet and packed them with tow twice daily. He could get up and lie down and even walk round his box. Bed sores of course he had, but by rubbing on carbolised vaseline it kept them from getting very bad. He would lie there and let us dress his feet and never move a leg. The first foot (near hind) was at a standstill for about a week, when a small piece of bone sloughed out. From then they went on splendidly and grew good soles. The two hind hoofs sloughed off, but now he is turned out and has grown two new ones of a good shape.

This case is of interest to me in teaching me never to give up, even when a case is looking very bad indeed and seemingly going against you, and of long duration. This one went on from November 18th 1900, till I made my last visit on June 19th, 1901. I did lose heart two or three times, especially after taking two or three of my veterinary friends up to see it. They did not give me much encouragement. The nursing was perfect. Two men sat up with him for about eight weeks and we have been rewarded in seeing him gallop about. He could be hunted if it was necessary, but the owner thinks he deserves a winter's run.

R. Macgregor.

Kibworth.

SOME SURGICAL NOTES.

By Fredk. Hobday, F.R.C.V.S., Kensington, W.

A Troublesome Monkey Cured by Oophorectomy.

In June, 1900, I was consulted by Mr. Slocock, F.R.C.V.S., with reference to a large female monkey between three and four years old, the subject of a perpetual œstrum during several months of the year. On account of the indecent exhibitions which were made it was quite impossible that the animal should have her accustomed freedom as a pet, particularly as at times she showed symptoms of viciousness and attempted to bite. The external genitals became much enlarged and a quantity of slimy fluid was exuded. I advised oöphorectomy and this operation was accordingly performed.

The animal was secured with the usual hobbles on the canine operating table on her back and anæsthetised with the human adaptation of the first pattern of my chloroform apparatus, A.C.E. mixture being used. She became unconscious in three minutes and took the anæsthetic very well. The skin between the umbilicus and the brim of the pelvis was shaved, carefully cleansed and scrubbed with an antiseptic. An incision was made in the median line midway between the umbilicus and the brim of the pelvis and the ovaries were discovered without any trouble. Boiled silk ligatures were applied before excising them, and the abdominal wall and skin were sutured separately with silkworm gut. The wound was then carefully dried and covered with iodoform-collodion (1-10).

Beyond the removal of the external sutures on the 6th of July the wound was never touched, and the animal went home on the 8th. At no time did the monkey show the slightest sign of illness nor did she attempt to touch the wound, a strong testimony I think to the value of antiseptic operating, as the mischievousness of the monkey is proverbial, and the slightest irritation (such as the presence of pus would cause) would in all probability have led to the removal of the sutures and to troublesome complications in the wound.

She showed no resentment and was much more friendly afterwards than before. The ovaries were apparently healthy. The sequel has been very satisfactory, for Mr. Slocock informs me that there has been no return of the objectionable symptoms.

A Troublesome Mare Cured by Ovariotomy.

In September, 1900, I was consulted by Mr. Bloxsome, M.R.C.V.S., with reference to a hunter mare, 7 years old, very frequently in œstrum, and when in that stage troublesome if brought in contact with other horses, sometimes, too, refusing to jump. She also went in harness, but when in œstrum was a a "slug." Ovariotomy was performed in the usual way *per vaginam* (Sept. 10th), and recovery was quite uneventful. In fact the words used by Mr. Parsons, M.R.C.V.S. (who was assistant at that time to Mr. Bloxsome) in describing the after effect were "The patient has not taken the slightest notice of the operation."

In November I received the communication "Without doubt there is a decided change for the better in her character and temper. She will jump and face anything now in cold blood. There was not much improvement for a while but now she never refuses."

The mare was ultimately sold and her owner wrote on the 15th of January of this year saying that she was "simply splendid. I have had some good sport on her." The improvement has been main-

tained and there has been no relapse into her former troublesome habits. When put in harness, too, the same improvement was manifested.

(To be continued.)

AN UNNAMED DISEASE IN SOUTH AFRICA.

I was much interested in reading Mr. Lund's notes on the above disease in your issue of the 14th September, as a number of similar cases came under my notice at Kroonstad, and at the camps between there and the Vaal River. There the disease was known as Bilious Fever, and was looked upon as being tolerably fatal. More cases occurred during the hot weather than during the winter months.

The symptoms were similar to those described by Mr. Lund, the purple blotches on the conjunctival mucous membrane being very marked, and the patients lost flesh rapidly. Various kinds of treatment were adopted but we found the most successful to be mag. sulph. ʒiv. with ammon. chlor. ʒiv. in solution, given twice daily for four or five doses, and followed up by vegetable tonics. This was fairly successful except when the patient was in the advanced stages of the disease before being attended to. The mules did not appear to be affected to anything like the extent that the horses were.

T. R. R. Hoggan, C.V.S.
Royal Engineers, Aldershot.

September 25.

ABSTRACTS FROM FOREIGN JOURNALS.

Central Syndicate of Veterinary Inspectors of Meat in France; Its Aim, Importance, and Utility. Its First Results.

Le Syndicat Central des Vétérinaires Inspecteurs de Boucherie was formed in consequence of a decision of the State Council and as a result of the suit of Burgat, showing the instability of the position of the sanitary officers of the Municipal abattoirs. In September, 1899, when the Grand Council of Veterinary Surgeons met at Dijon this Society was founded under its patronage.

On December 13th 38 members were enrolled in consequence of a circular sent out by the organising committee. This number on March 15th was raised to 109 at the first general meeting where the formulation of rules coincided with the Bureau of the Council of Administration. At the later general meetings the total number of members rapidly increased: 23 on June 17th; 9 on Sept. 9th, 1900; 10 March 9th, and 4 May 19th, 1901. Amongst these 155 syndicated veterinary surgeons there are seven foreign correspondents: Méssieurs Coremans, Belgium; Guerricabeitia, Spain; Kowalewsky, Russia; Svoboda, Bohemia; Drs. Dentice, Italy; and Kabitz and Kopp, Germany.

The annual subscription is five francs for French and foreign members, and this includes the right to receive gratuitiously the *Bulletin du Syndical Central des Vétérinaires inspecteurs de boucherie*. This periodical has up to the present been issued every three months, but it is hoped that before long, that is as soon as the funds of the Association will allow, to publish it oftener.

The following are the officers elected to conduct the Bulletin: *President*, M. H. Rossignol, senr., Melun; *Vice-presidents*, Messieurs Leclerc, Eyons, and Cagny, Seulis; *Secretary-General*, M. Ch. Morat, Troyes; *Treasurer*, M. Carreau, Dijon; *Council:* Messieurs Andrieu, Beauvais; Bouchet, Creil; Carrière, Pontoise; Chauvet, Romilly; Farçat, Amiens; and Vignon, Rheims.

The Association defines thus, in its rules, the work it hopes to accomplish:

Art. 3.—The Syndicate has for its object: To establish a bond between all inspectors of abattoirs so as to enable them to successfully defend their material and moral common interests; to assist its members; to improve the service of meat inspection by the discoveries of science; to arrive at a uniformity of action in regulating, as far as possible, the motives for seizure in abattoirs; finally, and in general, to take all measures and to employ all useful means to defend professional interests whatsoever in conformity with the law of March, 21st, 1884. H.G.

The Result of Experiments made with Mallein in Roumania. (Original article).—By S. St. Furtuna, Inspector of the Veterinary Civil Sanitary Service in Roumania.

How must horses be treated that have reacted to mallein?

In this respect instructions are not clear, they leave everything for the Commission to decide as to how the different cases shall be treated. The members of the Commission, it must be acknowledged, assumed too much at first. For the most part they employed themselves in trying to bring about the cure of affected animals by successive malleinisations. They made great efforts to effect this by isolating and separating horses with great typical reactions. These restrictions would cause great dissatisfaction in civil and military service. Afterwards, after a number of observations had been made, a collection of rules for horses which gave typical reactions were framed.

To begin with, it must be acknowledged that, arising from our observations, out of 100 horses that reacted very few were affected with internal lesions (ulcers, etc.), whilst 95 per cent. were affected in a limited and latent form. It follows that very few of the cases of glanders are dangerous for other horses, and the other ones are wholly innocuous.

1 Horses giving a typical reaction to mallein and exhibiting clinical signs suspicious of glanders must be immediately slaughtered.

2. Horses having no external, clinically suspicious symptoms such as nasal discharge, espistaxis, orchitis, but which have given typically organic and thermic reactions in two, three or more cases, and showing a bad condition of body and feeding badly, must be separated, and if the veterinary surgeon thinks fit may be slaughtered.

3. Horses with typical thermic reaction in a good

state of health showing no clinical symptoms must be separated and if possible perform their accustomed work.

4. The separation and observation shall continue so long as the typical reactions continue. As soon as the slightest visible external symptom of glanders occurs the horse shall be slaughtered.

5. In order to prevent every possibility of error or harmful influence arising through a change of temperature, it is recommended that the malleinisation be made in stables protected from the cold, wind, and heat, the temperatures written down and taken away by the veterinary surgeon, verified thermometers being used.

The continuation of malleinisation and the observation of the horse cannot be too strictly conducted. It is certain that many horses after malleinisations repeated every 10 to 14 days have reacted for two to four months, and even longer, and then not again. To kill such animals would be to do the owner an injustice, as well as the different branches of the service.

The Healing Power of Mallein.

From the experiments of Dr. A. Babes, Professor V. Babes, Lemner, and others certain encouraging results were related. At the veterinary college Prof. A. J. Locusteaun treated several clinically affected horses with Babes' mallein and relates their cure.

Prof. Schindelka at the Veterinary School at Vienna, and Prof. Leclainche, of Toulouse, relate several cases of cure through injection of mallein. Without doubt experiments conducted up to the present are not nearly sufficient to admit of sound conclusions on this matter.

Some members of the commission believe that the employment of mallein in some cases is merely a fortunate coincidence occurring at the time spontaneous healing is taking place. Still there is a possibility that among the many chemical products present in mallein there may be one that has a curative effect.

Proposition.—That in view of a future mallein commission the present commission agree with the opinion of J. St. Furtuna, head of the veterinary service, namely, that the present commission with their budget be turned into a permanent disease commission which shall have the following under consideration: (*a*) The clinical and bacteriological study of all the diseases of the country; (*b*) investigation of means for fighting and preventing contagious and infectious diseases with observations on inoculations against different diseases; (*c*) declaration of the best methods of disinfection in cases of disease; (*d*) collection of necessary instructions in the employment of inoculations and those means which serve for the diagnosis of different diseases (tuberculin and mallein); (*e*) the preparation of tuberculin, mallein and other inoculative material; (*f*) the study of the different results of malleinisation, tuberculinisation, inoculations etc. which have been made in the country.

Concerning malleinisation.—(*a*) Instructions on the technique of malleinisations shall be circulated so that all veterinary surgeons shall act in a uniform manner; (*b*) all cases shall be noted when mallein or morvin shall be used, and in which animals and how often; (*c*) the result of the mallein tests shall be left to the judgment of the veterinary surgeon who has conducted the inoculation, and an account of the same shall be rendered to the appointed minister by whom all determinative orders may be given in doubtful cases.

Service for the preparation of morvin (mallein) shall be recognised. For the preparation of tuberculin and inoculative material so necessary in the administration of veterinary law and police, work shall be done partly in the bacteriological institute and partly in the veterinary school.

On the value of mallein the commission expresses the following opinion: (*a*) Mallein and morvin are the only means yet known to science whereby glanders without clinical symptoms can be diagnosed; (*b*) mallein and morvin are in many cases valuable means in themselves of stamping out glanders; (*c*) the positive reaction of mallein usually makes the presence of glanders certain; (*d*) the negative reaction if no suspicious clinical symptoms are present shows that the horse is free from glanders.—Ex. *Berliner Thierärzt Woch.*

(To be continued).

G. M.

TELEGONY.

Knowledge upon the subject of telegony until recently depended entirely upon recorded cases, and although physiologists in past ages have accepted it more or less generally, and created theories to account for it, it has only within the last few decades aroused scientific interest.

Although with breeders generally belief in "infection" has long been an axiom, some, such as Settegast and Kühn in Germany, and Sir Everett Millais and others in England, have never known a case to occur, and although Millais believed in telegony as an abnormal and rare occurrence, he expressed himself upon the subject thus: "In a breeding experience of nearly 30 years' standing, during which I have made all sorts of experiments with pure-bred dams and wild sires, and returned them afterwards to pure sires of their own breeds, I have never seen a case of telegony, nor has my breeding stock suffered. I may further adduce the fact that I have made over 50 experiments for Professor Romanes to induce a case of telegony in a variety of animals—dogs, ducks, hens, pigeons, etc.—and I have hopelessly failed, as has every single experimenter who has tried to produce the phenomenon.[1]"

Various biologists have expressed opinions on the subject. Agassiz believed that the male influenced the ovaries of the female. Darwin, after dealing with the question of "the direct action of the male element upon the mother form" sums up with the words: "We have ..... seen that in the case of plants the male element may affect in a direct manner the tissues of the mother, and with animals may lead to the modification of her future progeny."[2]

Romanes considered the evidence he had collected "enough to prove the fact of a previous sire asserting his influence on a subsequent progeny."[3] He, however, came to the conclusion that it was an extremely rare occurrence, probably not taking place in more than 1 or 2 per

1 *Two Problems of Reproduction*, 1895, p. 20.

2 *Animals and Plants under Domestication*, i, pp. 437, 438.

3 *Contemporary Review*, April, 1893.

cent. of cases.[4] Weismann does not believe in telegony, although he does not dispute its possibility, and he gives an explanation of how it might occur, which I shall refer to later.

Professor Cossar Ewart, who has for many years been carrying on breeding experiments to investigate, among other important questions, that of telegony, says: "Since I turned my attention specially to the subject, in 1894, I have, in addition to making experiments likely to give telegony the best possible chance of declaring itself, investigated a large number of alleged cases of "infection." The result, so far, is that the evidence in support of undoubted 'infection' having ever occurred is most unsatisfactory. In every case investigated the supposed 'infection' could be accounted for by the relatively simple reversion hypothesis, and the same hypothesis, I am now satisfied, is sufficient to account for what at first appeared as evidence of telegony in my own experiments. I do not by any means say telegony is impossible, that it never has occurred in the past, and never will occur in the future; but I think I am justified in saying 'infection' has never been experimentally produced, and that the kind of 'infection' so widely believed in by breeders, if not impossible, is at least extremely improbable—as improbable as the almost equally common belief that the colour of the offspring may be influenced by 'mental impressions," as Laban's sheep and cattle are said to have been influenced by the peeled wands placed before them by his son-in-law, Jacob."[5]

Now the "tradition," as Weismann calls it, in which most breeders believe is that an "infected" animal "throws back" to the previous sire –that the subsequent offspring take after the first sire. These are expressions commonly used, but they convey no definite idea. Professor Ewart says that breeders believe in direct "infection," and the following example which he gives will indicate what he means by this: "My sable collie's pups to a Dalmatian have only four or five patches of colour, such as occur in foxhounds and pointers. According to the breeders' view of telegony, her next pups to a collie like herself should, if she has been 'infected,' be spotted like a Dalmatian."[6] He therefore evidently means by "direct infection" that the subsequent offspring will resemble the previous sire and not the offspring of the previous sire.

It is rather unfortunate, therefore that he should have used the term "direct infection" in another sense in the following passage: "If telegony is due to the direct 'infection' of the germ plasm of the dam by the germ plasm of the first or of a previous sire, there seems no escape from the conclusion that the subsequent progeny should resemble the first offspring rather than the previous sire."[7]

Now in order to illustrate that breeders believe in the direct infection first referred to, Professor Ewart gives the following two cases which, he says, make this evident, "The race-horse Blair-Athol had a very characteristic blaze.....It is said that mares, after having foals to Blair Athol produced Blair Athol-like foals to other sires utterly unlike Blair Athol. In the same way a fox terrier, after having pups to a Dalmatian had...spotted pups to a dog of her own breed."[8]...With great respect to Professor Ewart, in the absence of information as to the offspring to the first sire in each case, these examples, as stated, do not make his contention evident. Had he not drawn a distinction, by the illustration of the collie pups, between resemblance to a previous sire and resemblance to his offspring, the cases might have stood, but in view of that distinction they seem to be merely somewhat loose statements of cases of infection, and not to bind the person who states them to a belief in direct infection such as Professor Ewart suggests. I have indeed been unable to turn up anything making it clear that the general belief is such as Professor Ewart suggests and for the most part, breeders, in talking over the subject, do not seem very certain what "infection" does mean when the question is pressed home.

A few cases and opinions will make it clear that the idea of the resemblance of telegonous offspring to the previous offspring has long been current. "Mr. Giles put a sow of Lord Western's black and white Essex breed to a wild boar of a deep chestnut colour; the 'pigs produced partook in appearance of both boar and sow, but in some the chestnut colour of the boar strongly prevailed.' After the boar had long been dead, the sow was put to a boar of her own black and white breed – a kind which is well known to breed very true, and never to show any chestnut colour—yet from this union the sow produced some young pigs which were plainly marked with the same chestnut tint as in the first litter.[9]

Darwin mentions two other cases in which the subsequent offspring resembled the offspring of the previous sire, and also states that "farmers in S. Brazil.....and at the Cape of Good Hope.....are convinced that mares which have once borne mules, when subsequently put to horses, are extremely liable to produce colts striped like a mule."

Weismann[10] mentions the following case: "The philosopher Carneri mentions a case which came under his notice. He kept a herd of cattle of the dark grey Mürzthal breed. On one occasion he put one of the cows to a 'light-coloured Pinzau' bull, instead of to one of the same breed. The cow threw a calf with the characteristic brown and white patches of the Pinzgau breed, as well as with distinct traces of the dark grey Mürzthal cross." The cow was subsequently covered by a Mürzthal bull, and, contrary to expectation, the second calf was also a 'hybrid," being for the most part grey, 'but possessing large brown spots like those of the Pinzgau breed."

Now all such cases may be interpreted, as Professor Ewart had said, "by the relatively simple reversion hypothesis." What then did Millais mean by saying that he hopelessly failed to induce a case of telegony "as has every single experimenter who has tried to produce the phenomenon?" Did he mean that he had never seen a case of reversion? What did Romanes mean by saying that he had sufficient evidence "to prove the fact of a previous sire asserting his influence on a subsequent progeny?" Did he mean that he knew of direct infection, or was he referring to cases of reversion? It seems clear that the word "telegony" has been used in different senses, yet Weismann, who first used the word, makes it plain that he intended it to bear the meaning it had in Carneri's case, a resemblance of the telegonous offspring to the previous offspring. He explains his meaning as follows: Having mentioned a few cases he says, "such cases could only be accounted for, from our point of view, by supposing that spermatozoa had reached the ovary after the first sexual union had occurred and had penetrated into certain ova which were still immature. The immediate fertilisation of the latter is rendered inconceivable by the fact of their immaturity, and the sperm-cell must have remained in the body of the ovum until the maturation of the latter, with the

4 *An Examination of Weismannism*, 1893, Appendix il.
5 *Penycuick Experiments*, p. lxviii.
6 *Ibid.*, p. lxix.
7 *Ibid.*, p. cxxxxix.
8 *Ibid.*, p. lxviii.
9 Animals and Plants under Domestication, i, p. 436. [Taken by Darwin from *Phil. Trans. Roy. Soc.*, 1821, p. 23, where the words are "some of which we observed, with much surprise, to be stained and clearly marked with the chestnut colour which prevailed in the former litter."]
10 Germ-plasm, p. 385.

nucleus of which it then united in the process of amphimixis. If this occurred some time after the first of the offspring was born it might easily have coincided approximately with the second coitus, from which the fertilisation would then apparently be due. If the "infection" were proved beyond a doubt, a supplementary fertilisation of an egg-cell in this manner must be considered possible. We certainly might then reasonably ask why mares, cows, or sheep should not occasionally become pregnant without being covered a second time. *But this has never yet been known to occur*, and I incline to Settegast's view that *there is no such thing* as an infection of this kind, and that all the instances which have been recorded and discussed critically by him are based upon a misconception.[11]

Thus telegony, according to Weismann, is merely a subsequent fertilisation by the first male, although Professor Ewart gives the following interpretation, which we venture to think erroneous: "Professor Weismann thinks telegony (if it occurs) is best accounted for by supposing that some of the germ plasm of the first sire reaches and penetrates some of the immature ova as well as the mature one from which the first embryo is developed. This germ plasm, instead of merely serving as so much nourishment to these immature ova, according to this view, retains its independence and eventually asserts its influence on the future progeny to a second and different sire.[12]

If, then, every case of telegony investigated is reducible to one of reversion, there seem to be three possible explanations:

1. That the reversion in the subsequent offspring was due to the influence of the previous sire.
2. That the reversion has masked or been mixed with telegony, or
3. That the reversion in the subsequent offspring after a cross was a mere coincidence.

1. There is one case which has occurred in Professor Ewart's experiments which has, I believe, been described as evidence against telegony. A skewbald Iceland pony, "Tundra," after producing a hybrid to a zebra, threw a foal to a bay Shetland, which not only showed no stripes, but was almost an exact likeness of its dam. If, however, we examine this case, we see a possible connection between the crossing of "Tundra" with the zebra and the strong prepotency she showed when mated with the Shetland pony. "Tundra," when young, produced a bay foal to a pony of her own breed; she was then mated with the zebra, and produced "a dark, faintly-striped, pony-like hybrid." She was covered again by the zebra, and the resulting hybrid was "so distinctly banded that it might almost pass for a zebra." She then produced the skewbald foal to the bay Shetland, and has since shown her prepotency again when mated with a bay Arab.

Now of course it is possible that the first bay foal was begotten by an *extremely* prepotent male, but considering how prepotent "Tundra" has since shown herself to be, this explanation does not go for much. The prepotency of "Tundra" seems to have arisen after she produced her first foal, and it may not be unreasonable to connect it with her mating with the zebra.

If in all the other cases reversion in the second offspring was due to the previous sire's influence, the female must have been preprotent over her second mate since, in spite of him, she caused the offspring to resemble her own ancestors. The prepotency, therefore, of "Tundra" first becoming evident after she had been covered by the zebra may, after all, fall into line with the other cases.

2. As to the possibility of telegony being masked by or mixed with reversion, it has been suggested that the usual experiments should be reversed to "see if the progeny of a less highly specialised pair do not sometimes display traces of a previous union of the mother with a more highly specialised male," as "these effects could not be due to reversion."[13] There seem to be difficulties in this direction also, as the second mating, a cross, might produce reversion, and if it did not, apparent telegony might be due to a highly prepotent female.

In the case of "Tundra," at first sight, the first zebra hybrid being dark, pony-like, and faintly striped, is hopeful for telegony. A Clydesdale mare, however, which had not had a previous foal, threw a hybrid to the same zebra which was quite as faintly striped as "Tundra's" first hybrid. The only possible point in favour of telegony seems to be that "Tundra's" first hybrid is "the darkest of all the hybrids," and whether this is due to the previous mate, the Iceland pony, it seems impossible to say; at any rate, Professor Ewart does not suggest it.

3. As to the third possible explanation, that the occurrence of reversion in the subsequent offspring after a cross is a mere coincidence, there is little to be said. Reversion as a result of crossing is not uncommon, but reversion in pure-bred offspring is less common. It is strange that reversion has occured in pure-bred offspring after a cross in many cases, but whether it is coincidence or cause and effect is not likely to be known until we have a clearer understanding of the laws which govern that complex problem, heredity.—*The British Medical Journal.*

[11] *Ibid.*, p. 385.
[12] *Penycuick Experiments*, p. cxxxviii.
[13] A Note on Telegony, Xenia, and Hybrid Cology, *Nat. Science*, May, 1899.

VETERINARY SOCIETIES.

SOUTH DURHAM AND NORTH YORKSHIRE VETERINARY MEDICAL ASSOCIATION.

The 13th Annual Meeting and Dinner of the Association was held on Friday, September 13th, 1901, at the North Eastern Hotel, Darlington. The chair was occupied by the retiring President, Mr. G. E. Gibson, of Sedgefield, and those present included the incoming President, Mr. W. Newton Dobbing, of Darlington; Messrs. W. Hunting, London; W. Awde, Hon. Secretary, Stockton; C. G. Hill, and J. H. Taylor, Darlington; A. Peele, West Hartlepool; John Wilson, Yarm; W. H. Blackburn, Barnard Castle; E. R. Gibson, Seaham Harbour; P. Snaith, Bishop Auckland; S. E. Morton, Middlesbrough; G. R. Dudgeon, Sunderland; and O. Cairn Forbes, Bishop Auckland.

Mr. W. J. WILSON presented an interesting case. He placed on the table a small bottle containing milk, which he said he had taken that morning from a foal four months old. She commenced milking in June. He saw her on August 3rd, and the off-side gland or teat was enlarged, she was milking from that. He saw her that morning and the near-side was enlarged and the off-side had gone down, but both sides were milking. The animal was a Clydesdale filly foal, and had been in good condition all the time.

The SECRETARY remarked that he once knew a case of milking before fecundation, the only time he had ever known such a case.

Mr. AWDE presented the report of the Treasurer. It showed a balance in hand at the beginning of the year of £14 19s. and a balance in hand now of £19 2s.

The report was adopted, and votes of thanks were accorded to the retiring President and Hon. Secretary for their services.

PRESIDENTIAL ADDRESS.

W. NEWTON DOBBING, M.R.C.V.S.

Mr. DOBBING first expressed his thanks for the honour of election as President, and said the Association had been in existence some thirteen years, and he believed it would compare very favourably with those of a larger order, and was quite able to hold its own in any capacity. (Hear, hear.) It might have remained somewhat stationary numerically, but a lively interest was always taken in the meetings and discussions, and no efforts were spared to provide the necessary papers for such discussions, and to make them interesting and instructive. (Hear, hear.)

With regard to the veterinary profession, no one will deny the rapid strides that it has made even during the last ten years, and I am glad to say is still being made in every branch of science connected with the profession. The veterinary surgeon of to-day is taking his proper place alongside other professions, and we as a body are advancing on all sides. Progress is the order of the day, and it behoves us not to relax any efforts of progress but to do our utmost to raise higher the character of our profession and to strive to widen the range of opportunity for those who have to follow us.

I cannot let this occasion pass without alluding to the loss we have sustained by the death of three eminent members of the profession, one a Honorary Associate of this Association. I refer to Dr. Fleming, Prof. Williams, and Mr. John Freeman, each of whom occupied a prominent position and had the interests of the profession at heart, and were always ready to give their time and services ungrudgingly to any object calculated to help and benefit their fellow members. I think one and all will agree with me that we are distinctly poorer to-day by the loss of three such distinguished ornaments of the profession.

Now I have an account of my stewardship to present as your representative at the British Congress on Tuberculosis and I will do so as briefly as I can, as I know you are all anxious to hear what Mr. Hunting has to say to us on "The Treatment of Fistulous Wounds."

I left Darlington on Saturday, July 20th in order to be present at the opening ceremony on Monday July 22nd, performed by His Royal Highness the Duke of Cambridge at the request of His Majesty the King, who takes a deep interest in the eradication of so terrible a scourge as Tuberculosis, which claims about 60,000 persons annually as its victims. The opening of the Congress was well attended by all sections of the community and these included quite a number of enthusiastic ladies eager to lend their aid in whatever way they could be of service to the Congress and to make it a success. The greatest enthusiasm was displayed at all the meetings from first to last, and representatives from all parts of the world were present, including the most distinguished medical men of the foreign schools of medicine and veterinary medicine.

After the first day the Congress divided itself into sections, my section of course being the veterinary, which met each subsequent day in the Polytechnic Hall, Regent Street, and was presided over by Sir G. T. Brown. The time was from 10 a.m. to 1.30 p.m., a paper was read and discussion followed. The first paper was read on Tuesday, July 23rd, by Prof. Dewar, F.R.C.V.S., on "The Diagnosis of Tuberculosis in Animals during life," and as you will have the opportunity of reading the paper for yourselves I need not trouble you with any details regarding it. On Wednesday, July 24th, Mr. Jno. A. W. Dollar also read a paper on "Tuberculosis and the Milk Supply, and on Thursday, July 25th, Mr. James King, M.R.C.V.S., Chief Veterinary Inspector to the Corporation of London, read an important and practical paper on Tuberculosis and the Meat Supply. On Friday, July 26th, the last day of the Congress, a paper was read by Prof. McEachran, F.R.C.V.S., Chief Veterinary Inspector to the Canadian Government, on "The Legislative and other measures necessary to combat Tuberculosis amongst animals."

In addition to the above other sections held meetings daily, viz: State and Municipal, presided over by the Right Hon. Sir Herbert Maxwell, Bart., M.P., F.R.S. Medical, including Climatology and Sanatoria, presided over by Sir Richard Douglas Powell, Bart., and Pathology, including Bacteriology, presided over by Prof. G. Sims Woodhead, M.D., F.R.S.E.

There was also a General Meeting of the Congress each day at 3 p.m. either in the Queen's Hall or St. James' Hall, the final general meeting being held on the last day of the Congress, Friday, when resolutions were submitted for approval.

It was at the first General Meeting in St. James' Hall that Prof. Koch read his paper on "The Combating of Tuberculosis in the light of the experience that has been gained in the successful combating of other Infectious Diseases," Lord Lister presiding. It was listened to with rapt attention from beginning to end, and you of course all know the startling and all important announcement he made and which caused such excitement and consternation amongst all the eminent authorities assembled. His views however were not accepted as proof positive, although coming from such an authority as Prof. Koch, in fact one of the greatest living authorities on the subject, they naturally carry a good deal of weight with some people, and the general opinion was that although there might be something in the learned Professor's views it would be very unwise to relax any measures already taken with a view to the prevention of tuberculosis from animals to man, and that further experiments should be instituted to prove or disprove the correctness of the views held by Prof. Koch, in fact he himself suggested such. To show how some of the States act, their representative cabled Prof. Koch's views to his Government and suggesting experiments; next day he received the following message: "Cable received, experiments commence to morrow." Rather different to the mode of procedure in this country.

Prof. M'Fadyean read a very able paper in the Queen's Hall on "Tubercle Bacillus in Cows' Milk as a possible source of Tuberculous Disease in man," when he had an excellent and appreciative audience, Lord Spencer presiding, and it was very gratifying to me to see the veterinary profession taking such a place in the front rank and among all the best men of the world. They have a just right to be proud of Prof. M'Fadyean, who expounded his views so lucidly and so ably, and who I should say stands second to none on the subject of Tuberculosis considered from a veterinary point of view.

In conclusion I should like to say how pleased I was to see how well the veterinary section was attended; each paper was thoroughly discussed, and representatives from sanitary authorities, municipal authorities, butchers' associations, agriculturists, and dairy farmers were all in attendance and took a lively part in the discussions.

I think those present were generally agreed that the great danger to human beings consuming milk was that of tuberculous udders, and one other point in which the various professional speakers agreed was that tuberculin was the best diagnostic agent we have, and that with care it yields pretty nearly accurate results, but no one was prepared to say it was infallible.

Several practical resolutions were forwarded to the general meeting, copies of which I have here, but they were cut out on the ground that they would be too provocative of discussion, and the Council had on that account excluded them.

The principal speakers in the Veterinary Section were Professors Dewar, M'Fadyean, Williams, and Messrs.

W. Hunting, Dollar, King, and several others. The agriculturists were represented by Mr. Bowen-Jones, the dairy farmers by Professor Axe, and the meat trade by Mr. W. Field, M.P.

I have to thank you for the kind way in which you have listened to my report, and hope you consider it satisfactory. I may say I believe the Secretary will receive all the papers, and those who wish to do so will have an opportunity of perusing them at their leisure. I enjoyed the Congress very much, and would not have liked to have missed it as it was both profitable and pleasant. I cannot, of course, in such a short paper as this give a very detailed account, but have briefly alluded to what I saw and heard, and there is no doubt that great good will accrue as the result of the Congress. I noticed in the newspaper the other day that a Royal Commission had already been appointed by His Majesty and amongst the eminent men selected is Prof. M'Fadyean.

THE TREATMENT OF FISTULOUS WOUNDS.

By Wm. Hunting, F.R.C.V.S.

Mr. Hunting explained that he had not written a paper because he wanted, in a conversational way, to draw the members to state their views. He would endeavour first to make his own position clear by saying what he believed the disease was and then referring to its difficulties.

First of all about the definition of a fistulous wound. Academic distinctions he did not acknowledge. In his opinion a fistulous wound was one that would not heal, either because it contained some foreign substance that prevented it healing, or had something in it causing pus to form. Perhaps the smallest fistulous wound that he ever saw was one that a pin could have been passed into in a dog's neck. It had been there for three months, and had broken out again and again. At the bottom was found a stud of a dog collar, buried there for three months, and the explanation was that a cart had run over the dog and cut its collar in two. The mere removal of the stud was followed by an almost immediate healing. He thought this showed that a good deal of the treatment considered to be necessary sometimes in the case of fistula was unnecessary. Sufficient opening was made to release the foreign body; then the wound healed up of itself. Buried splinters of wood were often the cause of fistulous wounds, sometimes in the chest and sometimes in the coronet. Again there was perhaps the careless leaving of a pledget of tow in a strangles abscess. Every now and again, too, they came across a fistulous wound between the jaws, where there was no proper foreign body; a wound that they could hardly get a pin into. When they did get a probe in he suspected they discovered that it was some of the cartilaginous tissues of the larynx injured. There were dead tissues of various kinds. The most common cases of fistulous wounds they saw were fistulous withers, poll-evil, quittor, sternal fistula and dental fistula—all the result of necrosed tissue at the bottom of them. Following this list of cases one came to the cases that people called true fistula, where the irritating cause was some natural excretion or secretion of the body. One, fortunately not very common, was where the parotid duct or gland became injured and an escape of saliva from the wound resulted. A fistula of the gland, so far as his experience went, was not a serious matter, and nearly always would heal up of itself. A fistula of the duct, was, he thought, one of the most intractable things they could get. This intractability depended almost entirely upon the amount of injury to the duct. If severed the duct would naturally not heal up. If only partially cut there was a chance of the saliva continuing to get through the duct, and as the wound healed for the duct to become closed. So far as he knew the only domestic animal that suffered from anal fistula was the dog. These were intractable cases too. The wonder was that they had not more of these cases in dogs, for dogs frequently were troubled with anal diseases and very frequently suffered from perforation of the anus or rectum caused by needles or sharp pieces of bone. Lachrymal fistula was not at all uncommon in dog practice, the presence of the red dimple which they almost always had on the top of the fistulous opening, and the presence of the watery fluid marked the complaint. In his experience he had not yet been able to cure a case of the kind. But Prof. Hobday had informed him that the extraction of a tooth at the seat of the disease had been followed by good results.

The principles of treatment in these cases, as they were always told, was to remove the cause, but there was something to do, he always thought, before that. In a case of fistula it was as well to make up their minds, as near as possible at any rate, what the cause of it was. It was very simple to say that it was a piece of diseased tissue, but they could not always find out till they cut down. Take the case of fistulous withers. They could be laid open sometimes and very very little found, or little that they could pick out; or perhaps they found a piece of dead tissue which was the cause of the disease. Again, he sometimes thought they overlooked the state of the tissues themselves. They varied considerably. A quittor was a fistula, and a fistulous wither was a fistula, but they were different cases. In the treatment of a quittor to attempt to cure by way of a dependent orifice would be worse than the disease. To cut through the hoof in a case of this kind would be bad surgery. Besides it would be unnecessary. In the case of fistulous withers, owing to the action of the muscles, and the dense faschia that covered them, the possibility of pus getting beneath them was such that a dependent orifice was of extreme importance. Again, in the hoof as a rule the lateral cartilage was the trouble, a portion of necrosed lateral cartilage was, he supposed, the cause of about 19 out of 20 quittors. But in the twentieth it might be a piece of diseased bone. Of course it would save a lot of time if they knew exactly the cause.

The first method of treatment he would talk about was free incisions. In some cases of fistulous withers he had seen exceedingly free incisions. But all incisions, even about withers, ought to be done with some direct object and not merely to lay open the sinus. Bold surgery was very often rash surgery, and quite as often flukey surgery. Unless the sinus itself contained dead material there was no earthly reason for injuring twelve inches of skin an of subcutaneous tissues. All that was required was a dependent orifice at the bottom of the wound. They had all seen cases of fistulous withers where from the top of the withers a probe could be passed in three or four directions and a spot found where these sinuses converged. But in the removal of the dead tissue, and a dependant orifice, lay the healing of the whole thing. The sinuses themselves were not a matter of very great importance. But he did not believe it was necessary to destroy the walls of the sinus as used to be taught. He had never seen a case in which the sinus itself would not heal if there was a dependent orifice, and when they had the cause—the formation of pus above it—taken away.

Concerning the method of treating quittor—it varies considerably. Any method that was successful in a great number of cases was scientific, whether they could or couldn't explain it. If it did its work it was right; if it was right it was scientific. The principles of surgery were not spun out of the inner consciousness of some one, but were rules framed upon the empirical experience of practitioners. That led him to this. That without any dependent orifice, quittors, which were about as

distinct a case of fistulous wound as they could see, were healed in different ways. One man injected with caustic; another with disinfectants; another was plugged with corrosive sublimate; on another the hot iron was used, yet all had successful results in the treatment of quittors. He himself had tried pretty nearly everything, and he was about as "unscientific" as he could be in using the actual cautery. But less than half a dozen of the quittors he had done wanted touching a second time. He supposed all these treatments had really the same or similar action. After speaking of some of his experiments with the actual cautery the speaker remarked that he didn't believe there was ever a curly sinus. A probe could always get down to lateral cartilage that was diseased. See the exact distance the probe went down, then put in the hot iron to that distance. Now in using the hot iron the tissue was charred and the sinus plugged. The first time the iron was inserted it did not reach the bottom. The sinus was choked and the easiest way to proceed was to pass a stiff probe and then repass the hot iron so as to reach the bottom. He should then use a corrosive sublimate solution and plug with cotton wool. There were few cases not curable by so doing.

Excision in some cases of fistulous wounds was good surgery. For instance a piece of necrotic bone in the jaw or in cases where the pedal bone had been injured. As to excising the lateral cartilage he had great respect for the man that did it if it needed doing, but he didn't think it was worth doing. He thought it was like cracking nuts with a steam hammer. Parts were damaged permanently to relieve an object that could be achieved much more simply.

Under the head of the treatment of fistulous wounds he must mention poulticings, because one still saw quittors poulticed. He supposed this had about gone out. But why poultice quittors he had not the slightest idea. Disinfectants, of course, should be used in all cases. A continued use of disinfectants seemed to him to be good treatment. In the case of fistulæ which were kept open by the passage through of some natural excretion they could not "remove the cause," and therefore they had to adopt some other method of treatment. In a typical case of fistulous anus we passed a probe-pointed bistuory up the fistulous wound until they could find the point of it with the finger in the rectum; then cut out. The effect of this proceeding was to convert the sinus into an open wound continuous with the gut. Fæcal matter still passed through but was not confined and retained in a narrow passage. The hope was that the wound could heal up by granulation from below, and that the wall of the intestine would be the last to heal. If this took place we had recovery, but it was not possible to have insufficient healing of that point at which the original sinus left the bowel and consequently healing all around, but not at that spot. The cut surface must not be allowed to heal by first intention, and to prevent this a dressing of nitrate of silver, or muriate of iron should be applied immediately the cutting was done.

In conclusion Mr. Hunting said what he wanted more to do than talking himself was to extract any little practical tips as to the treatment of these fistulous wounds, some of which were very often rather intractable.—(Applause.)

Discussion.

The President said he had listened with pleasure and profit to the able address that Mr. Hunting had delivered to them. The subject was an important one because it affected every veterinary surgeon in town or country. Any new light thrown upon the subject would be welcome to one and all. He trusted a hearty discussion would ensue and very great good result from it.

Mr. Snaith, in following the President, mentioned a case that he had in hand a few days before. It was a hog pig. He received the usual instructions to examine for swine fever. When he arrived at the place the pig was alive, but just alive. He noticed a rent upon the sheath. It was very large and inflamed, and had a watery sort of discharge. He didn't know how to account for this at the time as these animals were not subject to some of the troublesome diseases which were more common in man. He put his little finger into it and found that the passage, as well as following the usual course, went directly inwards. As the pig was evidently dying he waited a few minutes. When he returned it was dead. The post-mortem revealed the fact that there was umbilical hernia with fistula, the actual cause of death being inflammation and strangulation of the bowel. With regard to fistulous wounds where there was no indication of any foreign body it had been his experience that much benefit resulted from the use of sulphate of calcium—that was for flesh wounds.

Mr. G. E. Gibson thanked Mr. Hunting for his very interesting address, remarking that the hints they had got from it must be very beneficial to them all. He might say with regard to fistulous withers that he believed with Mr. Hunting that it was quite unnecessary to open the fistulæ. He had found often that he had to leave the seton for three, four, or even five weeks. Mr. Gibson having narrated cases of sheep and a case of fistulous anus in a horse remarked that the cause of these fistulas he could never make out. He couldn't get to the bottom of them. He had the places, after treatment, syringed out with corrosive sublimate, and they got well in a month or two. With regard to the treatment of quittor he invariably plugged them with ordinary tow, and with a solution of sulphate of iron.

Mr. E. R. Gibson next spoke. He said he was in hope that Mr. Hunting would have suggested some new method. As it was they must be thankful to him for rubbing up their knowledge on the subject. He had seen all kinds of treatment applied to quittor. He had tried the heated iron, he had made an incision to remove, as he thought, diseased cartilage. In one case it was successful, in a good many not. In two cases permanent lameness afterwards resulted and enlargement of the parts. He didn't know whether it was his operation or the result of a diseased condition before. The treatment he always adopted now was a simple injection.

Mr. Awde added his quota of thanks to Mr. Hunting. He was sure that the class of cases Mr. Hunting had dealt with were almost the most difficult that they were called upon to deal with. He had mentioned several that didn't come in their way often, but he had also mentioned some that they saw fairly frequently and gave them a great deal of trouble and anxiety. During the time he had been in practice he had met with some most intractable cases of fistulous withers. He was not an advocate for laying open wounds, or making big flesh wounds. He thought that setons did more good, or the making of a dependent orifice and so getting the pus discharge away as early as possible was the best treatment. The difficulty he thought was that the pus itself was formed by the packing or by its own gravity. He had noticed that in many cases the pus seemed to form at a particular place and made its way from the faschia and muscles and got down lower, and then it was very difficult to treat. The best treatment was the dependent orifice. In many cases he had been at a loss to discover what was at the bottom of the diseased tissue. With regard to quittor, of course he had tried the various treatments for it. The best, or at least the most successful, was the probe-pointed bistoury. Sometimes they came to a quittor from corns. In that case make a dependent orifice at the foot. In another case he found that the best way was to take a probe-pointed bistoury, cut it out of the top and very little was necessary with that except a solution of perchloride of mercury, or something of that sort, and he found that the case did very well. In seven

cases of quittor treated all did well with the exception of one, and that was interfered with by a shoeing smith and the animal had to be shot. In some cases he had had to use the bistoury twice or thrice. Poll-evil was not anything like so common as it used to be in his younger days. He thought that was owing in a great measure to the fact that stable doors were not so low. Poll-evil cases had always been critical to treat. He had treated them as fistulous withers by making a dependent orifice, and the injection of solution of mercury, Then as to the necrotic portion of the bone of the jaw. He had met with two or three cases where the bone was diseased possibly owing to a fracture. He knew of one case where a horse was being broken in, and it leaped up into the air and came down on its head. A fracture of the lower jaw was the result. An external opening broke out and went on for a considerable time. The animal belonged to a surgeon, and a personal friend of them both had it cast, and he found the greatest benefit accrued from scraping the bone. No good was done until the horse was cast, the cavity cleaned out, and the diseased portion taken away. Then the animal made a good recovery. At the present time he had a case which belonged to a firm owning a lot of Clydesdale carthorses—very useful horses. He was informed that the horse was struck with a buckle about two years ago, and the wound had been forming ever since. It never came to anything till a few weeks before. He examined the horse and found a fistula right up above the hip joint, and his treatment had been directed to bring about healthy action. He didn't think he had ever met a case of fistula of the parotid duct. He had seen many cases of strangles and abscess, where he thought there was little discharge. They had given little trouble. He didn't know that he had ever seen a case of lachrymal fistula, though he had seen a case of the plugging of the lachrymal duct. Mr. Hunting mentioned that in accidents to hunters there was often found splinters of wood and thorns in wounds. That was not uncommon at all. He had found such on several occasions. Recently he was called to a case. He found nothing at night, for he went with a candle, but the next morning he found a piece of wood under the saddle. The owner said the horse jumped and nearly threw him as it was going underneath a place, and a piece of wood nearly a foot long had lodged between the saddle and the back. In another case a piece of wood got into the frog.

Mr. DUDGEON said that his experience had been now for some years that fistulous wounds were not half so common as they were fifteen or twenty years ago. Their knowledge of surgery and of antiseptic surgery had to a great extent prevented these fistulous wounds. Given that a veterinary surgeon was in attendance on a wound that was likely to cause a fistula, and given that the veterinary surgeon gave the wound proper attention, the probability was that he would never have a fistula. He might in some instances get it, but the probability was that if, under the circumstances he began to analyse his feelings, he would say : Now I have neglected something here, I didn't dress the wound for two or three days, or something of the sort. As to quittors, well they all knew they were abominable to deal with. There was no veterinary surgeon but that would rather have nothing to do with them. At least he would rather not. One very common cause for a quittor was a suppurating corn. After describing several cases, the speaker said he thought a little bold surgery in the cases referred to would often prevent a quittor. Thank goodness he had had very little to do with fistulous withers. But there was a case he had a few days before which illustrated an important point. The wound on the withers looked one of the most awkward-looking wounds they could have—simply and solely from neglect. When he was called in it might have been thought that the animal was not fit to work for six months. Well, he probed it—a simple thing—and found there was a little sac at the bottom where the pus was lodging. They also met such cases as pipe corns. They probed to the well, and by dressing the animal would go sound for three weeks or a month. At the end of that period the horn seemed to grow and they had to go on repeating the dressing out. They might not know it was an old corn. Why did it come right? He left that for Mr. Hunting to answer. (Laughter.)

Mr. TAYLOR said it was his loss that he didn't hear Mr. Hunting's remarks at the first. Regarding poll-evil, he thought they didn't get as many cases as they used to. He thought there was nothing better than to open the sinus and don't be afraid to use the knife ! If after that they were going to have a very large wound he thought butter of antimony was a good thing to use. It did away with any necrotic tissue ; follow this with chloride of zinc. As to fistulous withers, certainly in the few cases that had come under his notice unless bold incision had been made he was afraid the cure would have been a very, very long one. Sometimes they found a very small sinus ; they opened it and perhaps put a seton through and thought they had got to the bottom of it and had killed all discharges. Afterwards the wound not submitting to treatment, they took the knife and found a lot of necrotic tissue that ought to have been removed. With regard to quittors, they had a country practice and didn't get many cases ; but a gentleman who did said to him once : Give me a syringe and a solution of chloride of zinc and I will cure nine out of every ten cases ; he was very successful. Some cases couldn't be improved. In those where there was necrotic cartilage, cast the horse, ascertain the direction of the sinus, take away the obstruction, and cut down right upon the mischief, and they very often would come across a green piece of cartilage the size of their fingernail. Until this was removed and the injury to the wound dressed, they didn't get a good cure ; although perhaps it was a longer job.

The PRESIDENT told of a case of fistulous withers in a horse where the pus had got in behind the scapula. Everything was tried with very little benefit. The horse had ultimately to be destroyed. He should like to hear what Mr. Hunting had to say to a case of that description. With regard to quittor and that sort of thing, he quite agreed that there were not so many cases as there used to be.

Mr. HUNTING responded. Mr. Snaith mentioned umbilical fistula. Well he knew so little about the animals referred to that he was sorry to say he had never seen a case. He knew nothing about the diseases of foals. Mr. Gibson made some remarks as to the length of time it was necessary to keep the seton in a sinus. He certainly did say three or four days. Mr. Gibson said he had kept them in for three or four weeks. The explanation was pretty simple, and it was this : that he did not get rid of the original mischief. He was not sure whether he made himself clear as to the treatment of fistulous withers. Suppose, for instance, they had a scab or two on the top of the withers ; or it might be an open wound. Well, they might run down two or three sinuses. Now in these cases his idea was that the withers and these sinuses converge, and where they met was the original cause of the mischief. He should have said, and he believed he did say, that his first proceeding was to cut down, not too rashly, but boldly upon the part, and he wanted to trace his sinuses from that. After he had made this opening with a thoroughly big knife to see all that was underneath, he sometimes confined the injection to the dead ligament. They must take care and not injure the dorsal spine. Once or twice he had removed portions of a necrosed dorsal spine. Once it was a simple matter, and did all right. The second case had been too long in coming, and he wasn't sure he didn't do it more harm than good. He thought he did. There was a lot of faschia about there and the muscle could very easily be separated from por-

tions of the spine. The result of his interference was that there was a great deal more matter formed for some time, and it went down between the muscles and the spine, and he did more harm than good. However, he was not trying to find necrosed tissue and remove it. Sometimes it couldn't be found. He did exactly what Mr. Taylor said. He never allowed the wound to be treated merely as a simple wound to heal up as it liked. He prevented it from healing and he did it for exactly the reason Mr. Taylor mentioned—that he might slough out any small portions of necrotic tissue that he might have overlooked. He certainly did claim that this was followed by a considerable measure of success—more so than any treatment before. As to scrotal fistula in dogs he knew little about dogs. Mr. Gibson hoped to hear something new. Well, he was exceedingly sorry that he had not anything new for him ; but there was so much new now-a-days that he was not at all sure that it was not as well to go back and see how much good there was left in the old. (Hear, hear.) Mr. Dudgeon said that fistulous wounds were not so common now. He thought that was certainly a fact. He said it was due to better treatment of wounds than used to be adopted, and he should think that probably in many cases that was so. All kinds of cases seemed to him to have decreased of recent years.

Horses were undoubtedly better shod. For out of every five cases of quittor on the inside four were due to treads to one of natural injury. He was not going to answer about the pipe corn. But he would point out that the coronet was never injured in these cases. Why the horse had gone on from month to month he could not understand ; while as to the hole which existed up to the coronet he couldn't understand its continuance. The President asked how did he like a case of fistulous withers where the wound had got behind the scapula? He didn't like it at all.

There were plenty of cases that they did not do any good with. Really, however, he thought that what they came to was this. If there were half a dozen cases and half a dozen of them were set down to them, they would do very much the same thing. There was a good deal, he knew, in the man himself. Some were a little more careless than others ; some were in a hurry ; some were nervous. There were further reasons for mistakes occurring ; but on the whole he thought they treated these cases, so far as the discussion had shown, in much the same way. Certainly the principles they followed were the same. (Applause.)

The PRESIDENT moved a cordial vote of thanks to Mr. Hunting, remarking that it was not his first visit to Darlington, and he trusted Mr. Hunting would favour them again.

Mr. PEELE seconded. It was, he said, a very practical paper.

The resolution was carried heartily, and Mr. Hunting replied.

A vote of thanks was given Mr. Dobbing, on the proposition of Mr. Snaith, seconded by Mr. Awde, for having so well represented them at the Congress. Carried. The President replied.

Mr. FORBES was nominated as a member, and the proceedings concluded

THE DINNER.

The President (Mr. Dobbing) occupied the chair at the dinner. Following an excellent repast,

The PRESIDENT gave the loyal toasts, which were enthusiastically honoured.

Mr. G. R. DUDGEON proposed "The Royal College of Veterinary Surgeons," and made an appeal for the younger members to take an interest in the affairs connected with it.

Mr. W. HUNTING who was received with applause, replied. In reference to some of the remarks of the proposer, he urged that they should not, in sending men to represent them on the Council of the College, send local men who had no other recommendation but that they were local, but men who had done something for the profession, or gave promise of so doing. (Hear, hear.) But he could say of the College that no other body had made so great an advance, socially, professionally, or scientifically than it had during the last thirty years.

"The South Durham and North Yorkshire Veterinary Medical Association" was then proposed by Mr. W. HUNTING, who paid a compliment to the hon. sec. (Mr. Awde) for his energy, and said they should send him to the Council.

Mr. AWDE responded, remarking that he had responded 13 times. He was one of the three who originated the Association. He thought there was room for all their Associations if only they could get the support of the younger members which had been alluded to. They had 21 members, and though they kept getting fresh members they lost others, and so they did not increase numerically as they should like. But all the members in the immediate district were circularised for each meeting.

Other toasts followed. Various members sang to the accompaniment of Mr. Chas. Stephenson, A.R.C.O., a very pleasant time being spent.

THE NEW VETERINARY COLLEGE.

The winter session commenced on Wednesday, 2nd October. There was a large attendance of members of the profession and students, and others interested in the College, Mr. Alex. Lawson, J.P., President of the Royal College of Veterinary Surgeons, in the chair.

Professor TAYLOR read numerous letters of apology.

The CHAIRMAN then called upon Principal Williams to deliver the Inaugural address.

ADDRESS by PRINCIPAL W. O. WILLIAMS.

Mr. President, Ladies, and Gentlemen—I beg to thank you for the great honour you have done this College and myself in being present here to-day.

This is to many of us an extremely sad occasion, as at this time last year my late revered father, the first Principal of the College, was present at the ceremony, and none who heard him speak that day could have imagined that his span of life was about to be so suddenly shortened.

His loss is not only felt by us as a College, but is felt throughout the professional world, for he was, I may say without ostentation or fear of contradiction, the best known veterinary surgeon in the English-speaking world.

[In a short biographical sketch of his father's career, he referred to his connection with the Dick College, his severance from it in 1873 and his success in founding The New Veterinary College.]

Death has been busy in other places. Our first teacher of Chemistry was Professor Stevenson Macadam, a man of most distinguished ability, a firm friend and supporter of my late father, and one who, after he had resigned from active work in connection with the College, always took a deep and kindly interest in its affairs.

Among other well-known men to the professional world was the late Dr. George Fleming, C.B., whose contributions to veterinary literature have been of the greatest assistance in the profession's education to its present high standard. Dr. Fleming, by his efforts when President of the Royal College of Veterinary Surgeons, greatly assisted in the passing of the Veterinary Surgeon's Act. He also did *more* than any one to elevate the position of the Veterinary Surgeon in the British Army, and, if I

mistake not, was the first veterinary surgeon ever presented at Court.

Then we have lost Professor Hallen, at one time Principal of the Clyde Street Veterinary College, and a great authority in India in connection with the breeding of animals and on the various widespread diseases affecting them.

Still another great loss was a man of a later period. That was Mr. Freeman, of Dublin, one of our most esteemed examiners for the Royal College of Veterinary Surgeons. Shrewd, genial, he soon put a student at his ease, and was not long in finding out whether or not he knew his work.

The profession mourns them one and all.

To turn to other and less sad subjects, it would be almost necessary to speak of the great question agitating the world, both laymen and scientists (as all are interested), and that is, as to the transmissibility of tuberculosis from cattle to mankind. But why this excitement? Surely none of us have been under the impression that the *great* cause of tuberculosis in man was or is derived from the milk from diseased cows, from the flesh of diseased oxen? We have all been aware that the cause of the vast number—how vast I can't venture to even guess at—say 999 cases in 1000 has been due to inhalation of dried tubercular sputum of human beings, or of tubercular organisms which had grown in human beings, and that the odd one in 1000 had been due to the tubercular organism derived from the ox tribe. Then why this sigh of relief at Koch's pronouncement? Koch may or may not have destroyed a small kopje, which we really don't know whether or not contained a small outpost of the enemy, but is that of any material question when we remember that the main army is still intact? Don't let us forget this, whether Koch be right or wrong, that there are to-day thousands of men, women, and children living in this country who are distributing the seeds of the disease in myriads broadcast. It is to these animated Strawsonisers that attention must be directed in particular, and not solely to the little kopje containing a tubercular cow or a tuberclar pig, if man desires to protect himself from this terrible scourge. But not for one moment do I suggest that the danger from the ox tribe should be ignored, even though Koch has caused a doubt as to whether there even be a danger. It is the prominence given to these *minor* dangers to man that minimises the *great* and *grave* danger that we are incurring daily, and incurring blindly, that I desire to deprecate. Finally, as regards this question, we, as veterinary surgeons, know that the disease is causing terrible havoc among our herds, and it is *our* duty to continue to do all *we* can to abolish the disease from the animals *we* have to attend to, and we can *safely* leave the extirpation of the dire disease from mankind to our medical brethren.

As every one knows, the war in South Africa has taken away a very large number of the members of the profession, but even they have not been nearly sufficient in number to overtake the work that they have been called upon to do. At the present time, what with 197,000 horses, 50,000 mules, 500,000 sheep, and about a quarter of a million cattle of ours in Africa, there are only some 350 veterinary surgeons, and the War Office is finding it impossible to obtain a full supply, and is now making use of graduates from American schools and of graduates from the schools in the Indian Empire. I say all these men deserve the heartiest thanks of the Britishers, but it does seem a strange thing that the War Office is unable to supply the British Army with British veterinary surgeons, who receive a much higher training than the others mentioned; and why is this? Because the absurd position of the Army Veterinary Surgeon at the present time is, that as soon as war breaks out he is deprived of his staff, and is virtually helpless; this is too well known. I know of one man in Africa who, working hard all day, found it was as much as he could do to see each of his patients three or four times a fortnight! How could the British public expect horses and mules in Africa to be saved when such a thing did happen?

An Army Veterinary Surgeon in time of peace is all right, as he has a staff of farriers. The farrier sergeant-major he makes use of as his dispenser, the farrier sergeants as his clerks, and the farrier corporals and others as the nurses to his sick animals, but as soon as war breaks out all these men have to gird on their swords and take up their carbines, and go into the ranks. Surely this is absurd? Furthermore, an Army Veterinary Surgeon has not a substantive rank. He has a rank with a prefix, but he has no power. He is worse off than a schoolmaster who has no authority to punish his pupils. Until a proper Army Veterinary Corps be established, the British public will have to pay heavily in every way.

I will not further dilate on this matter, but refer to a feeling of resentment which has recently cropped up in connection with the action of the President of the Board of Agriculture. He gave it to be understood that he purposed appointing the leading man or the best respected man from a professional point of view in each district of the country as veterinary inspector. Without a doubt this created general satisfaction, and we all felt that were going back to the time when we had our respected county and burgh veterinary inspectors—men who were well acquainted with the neighbourhood and with the people, and men who had great local influence, which they were able to make use of when needed in any outbreak of contagious or infectious disease. But for some unknown reason the President of the Board of Agriculture has seen fit now to appoint junior members of the profession—men with little or no professional reputation, men with no local knowledge, no local prestige, to act as local veterinary inspectors. These men cannot expect the respect of the old local practitioner for years, if ever, and will have very considerable difficulty in keeping themselves from continually clashing with the local practitioner. And furthermore, take a man in my position, who has been in the habit of inspecting for the Board of Agriculture, directly or indirectly, under one name or another, but for the Government any way, for fully twenty years. What will my clients say when they report an outbreak of disease, and then find that not I, but a young stranger goes there, gives instructions, sees them carried out, and does everything that I used to be in the habit of doing? They are *bound* to think that I have fallen in the estimation of the Board of Agriculture, and I am sure there are many here present who will feel this slur on the old and tried inspectors as deeply as I do. Surely Mr. Hanbury is not of opinion that the only people in Great Britain who know contagious disease are the permanent veterinary inspectors in London, and that the only others that there can be are those that have to be trained by the Board's officials? I need say nothing further on this subject, only I trust that if what I have said should come to the ears of the President of the Board, he will understand that it is not a personal feeling that I am expressing, but it is the feeling of the vast majority of the senior men in the profession.

Now the field for the veterinary surgeon has within recent years become very much enlarged. Now yet another new Department is about to be initiated in India, known as "The Indian Civil Veterinary Department." Veterinary graduates from this country are about to be or have been engaged by the Indian Office to go to India and teach, or supervise teaching in the different parts of that country. One word of warning to any young men who purpose going in for this department, and that is, *be sure and have every detail of your appointment in black and white for future reference.* As you can easily understand, the verbal agreements made in London may be forgotten when once you are posted

in, we'll say, a northern province of India, and no amount of correspondence on your part can recall all of those verbal agreements and promises made in London.

Finally, to those who have honoured me by joining this College, I can only say that my utmost endeavours will be directed towards the advancement of their studies, and from twenty years' experience as a teacher I trust I know something about the work. You, gentlemen, must remember that when you come to College you are no longer boys. You have become men, and will be treated as such. Not only as men, but as gentlemen, and it will rest upon you and your sense of honour and duty to your College and yourselves as to its future and your own. I would draw your attention to the Boards behind us which are known as "The Honours' Lists," and would advise you all to strive to have your name put on, at least, one of these.

To you, Mr. President, I desire to express my deepest gratitude for the honour you have done this institution in presiding here to-day. You were a worthy student of my late father, and he always spoke of you with pride and pleasure.

And to you, ladies and gentlemen, professional friends, clients of my own, relatives of students, and others, I tender my heartiest thanks for so patiently listening to this brief and humble address.

Mr. LAWSON: Ladies and Gentlemen:—It is an old saying that the best chairmen have the least to say. I did not expect to have much to say to-day but I should just like to make a few remarks, especially when we have had such a good address from Principal William Owen Williams.

When I received from Principal Williams a letter asking me to come to preside at this meeting under his auspices, I was exceedingly pleased. I was pleased first of all because I was a Scotchman and Scotchmen are always a little clanish. I felt as if I were coming home.

Secondly, I was pleased because I thought I should meet in Edinburgh a lot of my former student friends of some thirty years ago, and I am glad to say I have done so. You have no idea what a pleasure that is until you have been away ftom Edinburgh so many years, as I have been, then you may be able to appreciate the pleasure.

Thirdly, I may say that I was pleased because, having been a student under Professor Owen Williams' Father, it afforded me the greatest gratification to come here to-day to assist his son. The late Professor Williams, as his son has told you, was a very great man. He was great in many ways. In fact, he was three men in one. There are very few Veterinary Surgeons who are good diplomatists, good financial men, with a good manner about them. There are very few men with all these qualifications, but the late Principal Williams had them.

I remember distinctly his Lectures in Clyde Street, when I was a student under him. His Lectures, which were held from nine to ten in the morning, were always packed, so largely were they appreciated. Not only had he the gift of lecturing well but he had the gift of getting *his* ideas into other people's heads, and always made the lecture most interesting. Often in the middle of a very difficult subject he would find time to explain it by saying, "I remember a case of so-and-so in such-a-place, etc.," and in that way explained it so well that you found when the lecture was over you were sorry to go away, and you had not the trouble of going home and studying what he said because it was already in your mind. Professor Williams was also a very practical man. His services were called for all over the country. I have often met him in far distant places in England, and it was always a pleasure to us to meet. I used to tell him that if he were going to the box, the horse would be sure to improve the moment it saw him. He was clever and knew his business, and nobody ever objected to meeting Professor Williams.

Well, gentlemen, you can understand when Professor Owen Williams, his son, has to follow a great man like that, he has a most difficult problem before him. I have come through it myself. I won't disparage my father. He was a great man in his own walk of life; he was a very successful man and seemed, like Principal Williams, a combination. He left two sons to follow him—one is here to-day, and I am thankful to say they succeeded in keeping up the large practice that he had. Now, I am sure that Professor Owen Williams will do as I have done and my brother has done: and his father, if he could live again would say, "Well done, good and faithful son."

You know, gentlemen, that you come here to study. It is a different thing from what it was some years ago. In my time it was only two years, now it is four, and it makes the expenses of the student very much more. It also makes a greater strain upon the professors During the last few years there has been a diminution in the number of students attending all the Colleges, and that is due principally, I think, on account of the four years course and the expense it entails, but now we are getting over the worst of it. Young people nowadays are getting better educated, and better equipped teachers are coming forward.

Going back to my father's time when he stayed in Edinburgh, he used to tell me that he lived on 6s. 6d. a week, and he said he lived well on that. I could not hope ever to do that myself; I was allowed a sovereign, but I hope you young fellows will never exceed that sum.

I should like, if it were possible, to see the three Colleges in Scotland amalgamated. I believe it would be the finest thing that could happen to the profession. I don't know whether it is private or not, but Prof. Owen Williams has suggested that there should be one great College, and it is only a matter of how it is to be brought about. You can easily understand in a College like this where Prof. Williams is the sole proprietor, it is a very great financial strain. He has to keep himself, and he has to keep professors, and he has to keep this large institution going. It is a most difficult task, and I think if some of our philanthropists would only come forward and take an interest in a College like this and would leave it a sum of money in their wills; or if a man like Mr. Carnegie would only give £50,000 for the benefit of the students, it would greatly relieve Principal Owen Williams.

You must not forget that good positions are now being offered to veterinary surgeons by County Councils, Corporations and other large bodies, more than there used to be, and as we get older more and more of these positions are sure to be offered. As Principal Williams has said, three hundred and fifty veterinary surgeons have been employed in the South African war, and it seems to me that they will have to keep a large number of these out there for ever. I believe that more would go into the Army service if they were better paid, and if they had their positions properly laid before them. At present, of course, it is easy enough to get into the Army because there is such a number of surgeons needed, but it is expensive to keep up the position of an officer and that is why some don't go into the Army. I believe that the next three or four years will see a great improvement in this direction, and then it will be for those of you who are inclined to go in for this work and reap the benefit of our efforts.

Prof. MCLAUCHLAN YOUNG. A most honourable duty has fallen to me, and one which I discharge with the very greatest amount of pleasure. I now propose a vote of thanks to Principal Owen Williams for his address, which was excellent, and I venture to say was worthy to

uphold the traditions of this room as a lecture hall. To my mind the Principal has been exceedingly fortunate in his choice. First of all, although at the outset rather sad, he could not have had a more fitting time for referring to those departed from our profession, and more particularly to the late revered Principal of this College. As a student of the late Principal and of the present Principal, I desire to add any little word of mine to that eulogy. The President has said to-day that the present Principal has a difficult task in following such a man as his late Father. We all admit the difficulty of the task, but we all see the great example he has in the life of his late father.

As to the testimonial which is now being raised to the memory of the late Principal Williams, I am sure we all desire that it should be a success, but it seems to me that the best memorial that we, late students of the Principal, can raise is to do all we can to assist the young Principal in the arduous duties now before him.

In the second part of his address the Principal touched upon many points which affect us particularly, and though we cannot hope that these evils will be remedied in the immediate future, still we can be very hopeful indeed when we have the President of the Royal College of Veterinary Surgeons as our friend.

Ladies and gentlemen, I desire to propose a very hearty vote of thanks to the Principal.

Mr. HEPBURN seconded, and the vote was carried unanimously.

Prof. MCADAM: Ladies and gentlemen, I have been asked to propose a vote of thanks to our Chairman to-day. I have great pleasure in being here to-day, because we have in the chair the President of our Royal College. He is a picked man. He has been picked by the profession to fill his present position. We presume that all believe, as we believe, that he is the best man for the position he is in at the present moment. It is quite easy therefore for me to propose a vote of thanks to him. He has shown his interest in the College in coming here to-day. No doubt it was to a large extent his duty to show that interest, but we believe that he came here dictated by his heart and not merely by a sense of duty.

Mr. Lawson, however, referred to one or two points upon which I feel inclined to differ with him. He referred to the possibility of a student living on 6s. 6d. per week. Well! It may astonish all of you, Mr. Lawson included, when I tell you that I should be quite prepared to produce one who was a student of this College within the last two or three years who lived in Edinburgh for over two years on a sum not exceeding 6s. 6d. a week (I'll put it that way). Now, I have very good cause to know that, and I have a great deal to go upon, and I may tell you this further, that that student (it came out quite unintentionally on the part of the student) after two years got very considerable assistance from outside friends connected with the profession, and was able to pass. I don't say that it is advisable to pass on 6s. 6d. per week, but it is possible. Six-and-six a week means that you are living practically on your own muscle.

I am very much interested also in the idea of one College for Scotland. I hope, however, when the Principal and Mr. Lawson are considering that point they will remember that they have to do away with at least two sets of professors, who have some interest in the matter.

We are glad to see Mr. Lawson because he is a Scotchman and we are glad to see him because he is President of the Royal College.

Principal WILLIAMS. Mr. President, Ladies, and Gentlemen, I rise to thank you most sincerely for the kind vote of thanks which was accorded to me for my humble address, and I trust that any promises that were made in it, you will find fulfilled before another year elapses.

Mr. LAWSON: Ladies and Gentlemen, I do not think I could do any better than just endorse these words of the Principal. It has been a great pleasure to me to come here to-day both personally and, I hope, as a good friend of Principal Williams. Of course, in my official position I certainly am pleased to be present, and I don't think I have gone outside my province in coming here to encourage my friend. It seemed to me that, especially after having lost his father last year, he required some assistance. I don't say that I have been of very much use, but as every helper counts I am *one*, and I am very pleased to have been here.

THE ROYAL VETERINARY COLLEGE OF IRELAND.

To-day (October 2nd) the Royal Veterinary College of Ireland enters upon its second session under the most favourable auspices, and with the most sanguine expectations. When one looks at the imposing pile of new buildings in Shelbourne Road, which will be ready for occupation in a few weeks, it is difficult to realise that they have sprung into existence in less than eight short months. The College buildings occupy about an acre of ground, and are arranged in quadrangular fashion, the intention being to preserve the large turfed space in the centre as an observation ground for animals. On one side of the quadrangle is the surgical hospital, where, in addition to stalls and loose-boxes for horses, space has been provided for the reception of all kinds of domestic animals. Here, under the careful supervision of Prof. Mettam, everything has been arranged with the utmost forethought and attention to detail, and expert observers have agreed that no better equipped hospital of the kind exists anywhere. Indeed, this is true of the whole College; the intention of the Principal and of the Board of Governors seems to be to make it an Irish Alfort, which shall in some respects surpass even its famous French prototype. At right angles to the hospital is the block containing the pharmacy and surgery, the operating theatre, and the dispensary, all of which have been, like the stables, most carefully planned, the walls in most cases being finished with rounded corners so as to accommodate the least possible amount of dust. The operating theatre, in particular, is worthy of the highest praise; the walls are finished in white enamel brick, and the floor, which is nearly thirty feet square, will be filled with peat to a depth of two feet. Adjoining this block and facing the hospital is the important group of buildings containing the class-rooms, pathological and bacteriological laboratories, and lecture theatre—the latter containing seating accommodation for 120 students, and having a wall splendidly prepared for lantern demonstrations. The fourth side of the square is for the present being left untouched, but when the existing buildings have been in occupation for some little time the original design will be carried out in its entirety. At present the prospects of the Irish Veterinary College are all that its most enthusiastic supporters could desire. It will begin its second session with at least double the number of students with which it started a year ago, and it may be expected that the numbers will rapidly increase after it has been transferred to more commodious quarters. At the outset the Irish College, like the Scottish institutions, was affiliated with the Royal College of Veterinary Surgeons in London, and the examination recently held by the latter body showed that the standard maintained by the Irish students was as high, if not higher, than that reached by the students of the other Veterinary Colleges in the Kingdom. In Ireland, where stock-breeding constitutes one of the principal sources of wealth, the knowledge and skill of the trained veterinarian becomes an economic factor of very considerable importance, and the establishment of the Royal Veteri-

nary College will, no doubt, prove of great material benefit to the country. But there is another aspect of veterinary science which, especially on the Continent, has been very fully realised during recent years. We refer to the intimate correspondence that has been shown to exist between the diseases of man and those of animals, and which renders the experiments carried on within the walls of a Veterinary College often of the greatest service in throwing light upon the obscure points in connection with human maladies. The authorities of the Irish College intend to devote special attention to research work, and it is hardly too much to hope that the College will not alone benefit the Irish agriculturist, but that it may lead to results which will be of high value from a humane standpoint.—*The Irish Times.*

ROYAL (DICK) VETERINARY COLLEGE.

The seventy-ninth session of the Royal (Dick) Veterinary College was opened on Wednesday afternoon, Oct. 2nd. The chair was occupied by Sir Andrew M'Donald, an ex-Lord Provost of Edinburgh, and there were several representatives of the Corporation present, besides a number of other public gentlemen.

The CHAIRMAN said he was sorry to say that this institution, like many others, was suffering from want of money, but even that could be overcome. He referred to Mr. Carnegie's extraordinary gift to the University students, and suggested that as veterinary science was marching in line with the other sciences Mr. Carnegie might include veterinary students within the scope of his scheme. (Applause.) He was sure the professors would not object to call the Dick College a University if that would bring them under the gift of Mr. Carnegie. (Laughter and applause).

ADDRESS BY PROF. HAMILTON.

Professor of Pathology, Aberdeen University.

When Principal Dewar wrote asking me to deliver the introductory address at the opening of the Dick College for the forthcoming session, I felt a high sense of the honour conferred upon me, but, at the same time, was somewhat puzzled to know on what subject to address you. Introductory addresses are apt to be somewhat formal and dry, and young men, as a rule, have a wholesome dread of them. Your worthy Principal, however, relieved me of the difficulty by suggesting some subject in comparative pathology, and mentioned "Braxy" as one likely to be of interest to you as students of veterinary medicine, as well as possessing certain features of interest for the general public.

Before, however, passing on to the special theme of my discourse, permit me to refer in the briefest terms to the wonderful progress made by the veterinary profession of late years. As an examiner in comparative pathology on the Veterinary Board for a number of years, I can bear witness, from personal observation, that the education you receive nowadays is something you may well be proud of, and that it will bear comparison favourably with that necessary for entering any of the other professions. Being objective in its character, and founded on scientific method, it is bound to influence you for good in a manner that no amount of mere lecturing could ever aspire to, and will last for all time. The raising of the standard of your preliminary examination, of itself, must have wrought an infinite amount of good by keeping out of the profession men who, from defective general education, would have proved unworthy members of it. It has often been argued, and sometimes by members of your own profession, that veterinary practice differs from that of human medicine, in so far as the former is a mere commercial undertaking, while the claims upon the latter are wider, and that, therefore, the pecuniary reward to be expected can never be so high in the one case as in the other. Granted that there may be some truth in this assertion, it must still be kept in mind that among practitioners of human medicine there is a large mediocrity doomed to a life of drudgery, and whose emoluments barely suffice to keep body and soul together, while in your own profession things have changed for the better with the advance of civilisation. The South African campaign has shown us that warfare in times to come is to depend for its success largely on the quality and efficiency of horses. Now, a good horse costs a deal of money, and is one of the chief items of expenditure in the armament of the country. So long as this need for horses in the Army continues, there will be a corresponding demand for the services of veterinary surgeons, in responding to which you are entitled to claim ample remuneration. In other walks of life, such as dairy inspection, inspection of meat, etc., there must in course of time, be considerable additional employment for veterinary practitioners. But, in order to qualify yourselves for such posts, you must become experts in the scientific branches of your profession, for it is when you have proved yourselves capable of undertaking such duties that your services will be called in.

I do not wish you to run away with the idea that I am a mere visionary optimist hoping for things which are impracticable. You have the means of augmenting your worldly prosperity in your own hands, and these consist in increasing the market value of your qualifications. Your colleges here and in England have been most estimable institutions, and reflect the greatest credit on those who have had the management of them. But why is it, may I ask, that, while our Universities grant degrees to practitioners of human medicine, to those following arts and science, and so on, as yet you have not claimed an equal right for comparative medicine. As probably you have heard there are likely to be great changes in the scope of our Universities in the no very distant future. We shall have to extend our range so as to be abreast with the advances of the times, and as supplementary to the various industries which have sprung up in our midst. Perhaps neither the Universities nor the Veterinary Colleges are ripe just yet for the following scheme, but I cannot see why the study of medicine should not be conducted on comparative lines, and why great schools like this which you have entered should not become affiliated with our University system. The benefit would be mutual, for I often think that the teaching imparted to our students of human medicine is somewhat narrow, and might be largely benefited by being considered still more even than at present from the comparative point of view.

BRAXY.

The subject on which I have promised to address you to-day is "Braxy," a disease well worthy of consideration at the hands of you all, seeing that the pecuniary loss from it is perhaps greater than from any other disease to which the lower animals are liable, amounting yearly as it does, in this and other countries, to hundreds of thousands of pounds. The disease is known in Scotland as "braxy," and in Germany, Denmark, Norway, and Iceland it goes by the name of "bradsot," or "brasot." At one time, so inexact and meagre were the records of the disease in this country, and so little had it been investigated by us, that there was some doubt as to whether the bradsot of Norway and Iceland was the same as the disease we have in Scotland. Recent inquiries, however, leave not a vestige of a doubt that the two terms, "bradsot" and "braxy," refer to the same disease. That of "bradsot" means "sudden sickness," and has been given to the malady on account of the rapidity with which it runs on to a fatal issue. It has been endemic in this country and in Iceland from time immemorial, but in Scotland, at least, has assumed more

serious proportions, on account of the vast increase which has taken place in sheep farming in the West Highlands. Sheep farming in the West Highlands dates only from the beginning of the nineteenth century. Previous to the nineteenth century the land now grazed over by sheep was almost entirely given up to the rearing of cattle, the few native sheep to be found here and there being mostly in the hands of crofters.

At present the losses from braxy are so great that many sheep farmers in the West Highlands have been ruined, and those who continue find it hard to compete with the foreign markets, owing mainly to the loss incurred from this disease. It is difficult to arrive at exact statistics on the matter of the average yearly loss, but Cowan, in his excellent essay on the subject, states that the greatest number of deaths which came under his own observation in seasons considered to be severe ranged from 15 to 20 per cent.; while on certain farms notorious for the disease, it was held, he says, that 20 to 25 per cent. was only a moderate average loss. In Morven, the loss, he states, has been reckoned at from 45 to 50 per cent.; and, according to my own observation on certain farms in the West Highlands, the whole stock of lambs, where they have been wintered at home, has sometimes been cleared out. In Iceland and Norway the loss is as great or greater than in Scotland, so much so that in these countries, as here, sheep farming has become a most precarious undertaking. It is an extraordinary circumstance that this disease, which inflicts such disaster on our sheep farms, has never, so far as I know, constituted the subject of a Government inquiry. We have blue-books innumerable on the subject of cattle plague, pleura-pneumonia, swine fever, anthrax, tuberculosis, etc., but this disease of sheep, from which the annual loss is perhaps as great or greater than from any of these, has never been held worthy of the attention which it undoubtedly merits; indeed, quite possibly our Minister of Agriculture, unless on a casual visit to Scotland, has never heard its name. I had been in hopes that Mr. Hanbury might have honoured us with his presence at this meeting to-day, but circumstances have interfered to prevent this. We Scotch are proverbially a long-suffering race, but, in this matter, it seems to me those having their interests centred in sheep farming have erred through over-forbearance. Surely it is a matter of moment to the nation at large to have at least exact statistics of the prevalence and annual loss incurred by this scourge to our agriculture, and all the more when it is the conviction of those pathologists who have made a study of it that the disease is one which, before long, will be found capable of prevention. There are certain features connected with it which render this outcome peculiarly hopeful.

Areas of Distribution.

Let me next ask your attention for a moment to this map of Europe, showing in a graphic manner the areas of distribution of braxy. You will notice that Iceland is notorious, and that it spreads downwards to the Faroe Islands, and along the whole of the west coast of Norway. It is met with sporadically in the Grand Duchy of Mecklenburg in Germany, but in no other part of that country. It is rife in Shetland, especially in the islands of Unst and Fetlar. The west coast of Scotland, as far down as Argyllshire, is infested with it; and, after passing over Ayrshire, it again breaks out, but in a minor degree, in Wigtown and Dumfries shires. It is practically unknown in England, unless we can believe Harvey's statement that a disease of sheep they have in Cornwall is of the same nature. In Peeblesshire cases occur now and again, but the counties on the east coast of Scotland are all more or less exempt. My inquiries seem to show that the disease is almost unknown in Aberdeenshire, and the same, I am led to believe, holds good of the east coast further north. On looking at the map, you will see at a glance that the distribution of the disease is very partial; that it affects the west coasts of countries in particular, and, moreover, that the parts of the countries where it prevails are all more or less under the influence of the gulf stream. Whether the warmth and moisture of the climate incidental to this circumstance have anything to do with the propagation of the micro-organism, which is the cause of the disease, I do not know, but the fact is sufficiently striking to be worthy of further inquiry.

Highland Society's Commission of 1881.

In the year 1881 the Highland Society sent a Commission, of which I was a member, to the Island of Skye for the purpose of investigating the disease. Further than getting certain information regarding its distribution and clinical features, we did not succeed in making much progress. The season of the year chosen for the visit was unfortunate. There was little braxy at the time in the particular district we were examining, and the crude methods of bacteriology then in use rendered the search for its cause almost hopeless. It must be remembered, besides, that the working out of a problem such as braxy presents, surrounded as it is with difficulties, extraneous and intrinsic, which do not complicate many kindred diseases, is not to be accomplished by a single haphazard visit to an infected district, but requires patient observation and experiment for its unravelling. Five years ago I resumed the inquiry on my own account, selecting one of the moist districts on the west coast, namely, Corpach, by Fort-William. I was fortunate enough to get introductions explaining my object to most of the sheep farmers in the district, who showed me every attention in the prosecution of the inquiry. Every year since then I have visited this part of the West Highlands, usually during the last fortnight of the year, and have never failed to find plenty of cases.

Symptoms.

My earliest efforts were directed to getting experience of the clinical features of the disease, and of its post-mortem appearances, and to obtaining all the information available regarding it from sheep proprietors and shepherds, and briefly summarised, I find these to be the following.

Perhaps the first abnormality discernible is the short step of the animal, with an inclination to lie down and get up frequently. Later on it separates itself from its mates, the back becomes arched, and the head depressed. I have seen an animal walk round and round a field in this state, evidently suffering from cramping pain in the abdomen. In a few hours it falls over on its side, becomes comatose, and dies usually in from sixteen to twenty-four hours after the symptoms have manifested themselves. The symptoms, their sudden onset, and the rapid progress to a fatal termination, together with the evident cramping pains in the abdomen, and the final collapse, put me very much in mind of those of Asiatic cholera. All cases seem to terminate fatally when the symptoms are well established. The collapse comes on so suddenly, and is so distinctive a feature, that sometimes the animal falls down as if shot, and dies within an hour or so afterwards, just as in Asiatic cholera in its worst forms. The incubation period can, of course, be determined only by inoculation experiments; and my own experience of such leads me to believe that it ranges between forty-eight and sixty hours, sometimes, however, being less than this.

(To be continued.)

"Erratum."

In the last issue, article on "Fractured First Rib," by H. G. Simpson, p. 205, line 3, by an error in transcription should read "showed a complete fracture of first rib on the *off* side" and not the *near* side.

ARMY VETERINARY DEPARTMENT.

Extract from *London Gazette* :

War Office, Oct. 4.

I.Y.—Lothians and Berwickshire.—J. Storie, gent., to be Vet.-Lieutenant.

Civil V.S. J. O'Brien, reported dangerously ill, Sept. 29, at Pretoria from enteric fever, is now progressing favourably.

Civil V.S. W. Kidd dangerously ill, phlebitis and bronchitis, Wynberg, Oct. 1.

Attached Veterinary Department.—Civil Surgeon R. Anderson, taken prisoner, Prinzen, Sept. 30. (Since liberated).

Lord Morris's mellifluous, Western brogue had, of course, the charm of coming from the lips of a man of high education and refinement, but he could, on occasion, descend to the rude Doric of the illiterate. For instance, at Coleraine, during the hearing of an action for horse poisoning, he was very much amused at the self-sufficient air with which a doctor was giving evidence, to the effect that twelve grains of the poison in question could be administered to a horse without fatal consequences. His lordship eventually said to the witness, "Tell me this, wouldn't twelve grains kill the devil himself if he swallowed them?" The medico replied, pompously, "I never had the honour of prescribing for that patient." To this the judge, in a most confidential tone, retorted, "Ah! no, dochthor dearh, ye nivir had. Mhore's the pithy; the ould bhoy's aloive yet!

CORRESPONDENCE.

PRELIMINARY EXAMINATIONS OF THE INSTITUTE OF SCOTLAND.

Sir,

I herewith send you copies of the examination papers of the last veterinary preliminary examinations of the Educational Institute of Scotland.

Talk about raising the status of the veterinary profession! Sir, such an examination is scandalous! Well may retired cross-country jockeys and starters at race meetings hold Royal appointments as equine dentists, etc., if our Council allow Tom, Dick, and Harry to enter the veterinary profession by their passing such an unreasonably easy examination. I know schoolboys in some ordinary grammar schools who at present are in the second or third forms, about the lowest in those schools, who would sit down, without having been crammed, and laugh in their sleeves at such "papers."

Any groom's son with six weeks' cramming would easily pass on these papers, although he was utterly ignorant of any of the very simplest things found in them before he took the notion to cram.

At the last professional examinations no fewer than 294 students, including 11 from Dublin, passed their examinations in classes A, B, C, and D. How many presented themselves for examination and failed I know not, but let us suppose that altogether some 400 students did present themselves. Add to these another 200 gentlemen who were not eligible for examination or were hindered from presenting themselves by some unforseen circumstance, and we get—the working of this problem is typical of those on one of the enclosed papers—600 gentlemen at the schools.

This is surely proof positive that gentlemen are to be found well enough educated to pass the late "Rational" examination in order to enter the several Colleges. Such gentlemen as these would not think of pronouncing fœtus as fo-e-tus; nor would they mis-spell cæcum as secum as I have seen it mis-spelled. We cannot hope to be elevated at this rate.

Remember, sir, that we are sometimes honoured by the Board of Agriculture in that they ask us to make examinations, both anti and post-mortem on pigs suspected of swine fever. Cœcum is a word which will very possibly appear in the report sent to that Board. What will the President of that Board think should he read illio secal valve? I cannot venture to express an opinion.

Again, such treatment is most decidedly unfair to those who have been in for much stiffer examinations and failed—or passed! This is not hitting the happy medium at all, and it is to be hoped that the Council of the Royal College of Veterinary Surgeons will immediately take steps to remedy this educational evil.

I am afraid that the veterinary profession is now on its downward course. We had all looked up to our shining lights to treat us fairly, but the new century—and we had all made such grand resolutions on its entrance—has taught us that a most drastic purgative is needed to clear us of our bad blood.

No other profession has taken such a retrograde step, and why should ours? Let our motto have the word "Onward," in plain English, attached to it and let us have the walls of our Council Chamber papered with paper upon which, in all the colour of the rainbow, the word "Onward" is printed. But even then, familiarity breeding contempt, the pattern of the paper would soon be forgotten in the heated arguments, they are *not* discussions, which arise in that Chamber.

It would seem to me that there are two sides to our House, and some three or four neutral members hanging back waiting to see which way the cat will jump. No matter how good a motion may be brought forward, how well thought out, and how well expounded, the *other* side will cry it down. This is the extent of our "business" as carried out at Red Lion Square.

If the Principals disagree, what can be expected of the gentlemen whose ways they are supposed to govern?

Another evil exists. Fighting amongst ourselves. Some say such nasty things behind the backs of others that they dare not meet face to face. This is the great cause, to my way of thinking, of the poor attendances at the several meetings of our different veterinary Associations. Amongst doctors things seem so different. A is ill and sends for B (his doctor) who is out and will not be in till 6 or 7 o'clock. A therefore sends for C (another doctor) who attends to A but lets B know that he has been to see A and turns the case over to him.

Just such an instance occurred with me a short time ago but with a very different ending. My brother practitioner treated what was virtually *my* patient for a fortnight (having of course got in league with the horse-keeper) when the patient died, but all this time I was in complete ignorance that anything was wrong at this particular stud. But what made the matter worse was that this *brother knew* that this firm had had my services for long years before. Can you wonder that gentlemen advertise after such as this? I am almost inclined to sympathise witn Mr. Banham who is to appear before the Registration Committee for advertising when for all we know one or more of these gentlemen may do worse things themselves.

Vis unita fortior is a motto more often forgotten than remembered.—Yours truly,

Nemo.

Communications, Books, and Papers received.—Lt. R. C. Cochrane, Messrs. G. Elphick, J. Nettelton, T. Wolsey, J. Forgham, R. L. Green, G. S. Heatley.

"*Horse-Breeding*," by Sir Walter Gilbey; "*Bovine Obstetrics*," M. G. de Bruin, Trans. W. E. A. Wyman, M.D.V., V.S. "*Meat Inspection*," (Walley) 4th ed., by Stewart Stockman.